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To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and improve the character of the service rendered to the public.

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A DULUTH BRANCH HYDROGRAPHIC OFFICE.

Under the provisions of the sundry civil bill just passed, Duluth is to have a branch hydrographic office, and it will be provided with all apparatus and hydrographic instruments, for which \$5,000 is appropriated. The head of the lakes will, therefore, receive full reports on marine meteorology and other information relative to navigation.

These branch hydrographic offices on the lakes will prove of much benefit to trade and commerce. The first branch office was established in Chicago in 1893, and it excited so much favorable interest and comment that Cleveland took up the matter and demanded a similar establishment at that point. This office was granted in September, 1894. The usefulness of both branch offices is now recognized generally throughout the lake region, and in the last annual report of the Secretary of the Navy the question of the selection of Duluth as a suitable point for a branch office was favorably recommended.

The office at Duluth will issue notice to mariners, bulletins, sailing charts and directions for pilots during the period of open navigation, and will of course be placed in charge of a naval officer regularly detailed to the station for duty.

DETROIT MARINE POSTAL SERVICE.

The postoffice department has just completed the annual trial balance to determine the status of the appropriations for the remainder of the fiscal year. It has been feared that the sum set aside for the free delivery service might be so much reduced as to interfere with the continuance of the marine postal delivery at Detroit, but it has been ascertained that after making proper allowances for all other expenses the balance will meet the cost of the contract

until July 1, with exactly \$4 to spare. Supt. Machen, of the free delivery service, is much pleased at this result. He said: "I have given this matter special attention and am glad to say that under the new contracts for this work the department has been able to cut down the expense several hundred dollars per annum. We have money enough to last out the present fiscal year, and the apportionment which has been made of next year's appropriation will carry the service from July 1 until the closing of navigation and from the opening of navigation in the spring into July 1, 1898. Our contract just entered into provides for the service until next winter."

GRAIN ELEVATOR FOR KINGSTON.

A company of Chicago, Duluth, Toronto, and Kingston capitalists has been formed to erect a half million bushel elevator at Kingston, Ont., to cost not less than \$100,000. On June 16 the electors will vote to grant the company a bonus of \$25,000.

TUG CAPTAINS CANNOT LIBEL.

At Duluth this week Judge Lochren of the United States district court decided that masters of tugs are not entitled to mariners' liens and dismissed all libels for wages filed by captains against the owner of the tugs of the defunct Inman line. Judge Lochren held that captains of tugs must look for their pay to the party who hires them. The decision imposes a hardship upon masters of this class of floating property which it is safe to say was never intended by the framer of the act.

NEW LAKE BUILT TONNAGE.

The Bureau of Navigation, Treasury Department, Washington, D. C., assigned official numbers to the following lake built tonnage during the week ending May 8, 1897: Sailing—W. Le Baron Jenny, 3,423 gross and 3,280 net tons, built at W. Bay City and hailing from Duluth. Athens, 2,074 gross and 1,054 net tons, built at W. Bay City and hailing from Port Huron. Crete, 2,041 gross and 1,921 net tons, built at W. Bay City and hailing from Port Huron. The small schooner Sofie Fournica of 22 tons, built at W. Bay City, hailing from Port Huron.

Steam—Erie, 44 gross and 30 net tons, built and owned in Detroit. John A. Aliber, 33 gross and 19 net tons, built at Saugatuck and owned at Grand Haven.

PETREL VERSUS GRACE RUELLE.

Ex-District Attorney J. W. Finney, of Detroit, has received the reply of the British government to his statement of the Grace Ruelle case. The reply covers 135 typewritten pages. It will be remembered that on June 6, 1895, the Canadian government fishery cruiser Petrel fired on the tug Grace Ruelle, owned by Capt. Alex. Ruelle, of Detroit, off Amherstburg, Ont., at the mouth of Detroit river, when she was towing a scow loaded with garbage, took the crew in charge and locked them up. Reparation was asked for to the amount of \$75,000, and both sides of the case have been presented in part so far.

"I can't say that I am greatly alarmed by the arguments employed by the British attorneys," said Mr. Finney, "and I don't expect to have any trouble in convincing the British government of the right of our claim. They admit that, if the facts are as we represent, it was a flagrant violation of international law, but they do not agree with our statement of the case. It is really a more important matter than people seem to think. If such a thing happened a thousand miles away, it would raise a great outcry among the people of this country. It will be a year or two probably before the case is settled."

NOTICE TO MARINERS.

CHANGE IN TYPE OF TWO RIVER DETROIT BUOYS.

When the Canadian buoys at the mouth of River Detroit were set out for the season, on the 23rd ultimo, the two buoys marking the exterior of the shoal off Bar Point and Big Creek, respectively, which were heretofore red barrel buoys, were replaced by red spar buoys, similar to the other spar buoys in the river.

REMOVAL OF WRECK OF "DAVID MASSEY."

The United States Government have given notice that the schooner "David Massey," which was sunk 1250 feet E. S. E. from Bar Point Lighthouse, was removed last autumn.

F. GOURDEAU,

Deputy Minister of Marine and Fisheries.

Department of Marine and Fisheries, Ottawa, Canada, 3rd May, 1897.

All bearings, unless otherwise noted, are magnetic and are given from seaward, miles are nautical, heights are above high water, and all depths are at mean low water.

Pilots, masters, or others interested are earnestly requested to send information of dangers, changes in aids to navigation, notices of new shoals or channels, errors in publications, or any other facts affecting the navigation of Canadian waters to the Chief Engineer, Department of Marine and Fisheries, Ottawa, Canada.

THE HOLLAND TORPEDO BOAT.

The successful launch of the Holland Torpedo boat at Elizabethport, N. J., on Monday last is of more than usual interest on account of the first boat of this type having been built by the Detroit Boat Works and experimented with, tested by a naval commission and otherwise proved the success of the newly-invented craft on fresh water, the inventor later receiving this his first order from the Navy Department on the showing made by the Detroit-built craft.

In the Record of May 6, we gave the dimensions and other particulars of this unique craft and now it can be said that the inventor of the boat, John P. Holland, has closely watched the construction all through. The vessel was christened "The Holland," by Mrs. Nixon, wife of Lieut. Lewis Nixon, the constructor. There were few present at the launching. Mr. Holland says there will not be any attempt at submarine evolutions for several weeks.

It is stated that Mr. Holland was asked by several governments to allow a representative on board during the trial trip of the boat, but he refused the request. After a trial trip he says he will allow an engineer from each government to see the workings of the boat, which, it is believed, will revolutionize warfare. Several foreign nations have bid on plans for the vessel, but it is likely that Mr. Holland will sell them to the United States and keep the question of construction as secret, as it is possible for him to do. Of course if the plans are bought out and out by this Government, Mr. Holland will lose all further rights or interest in his invention, at least to the extent of not being in a position to dispose of his plans to any other government, company or individual.

ASHTABULA BRIDGE.

Secretary Alger has approved plans for the construction of a bridge by the Lake Shore & Michigan Southern Railroad Co. over the Ashtabula River at Ashtabula. This bridge is to replace one destroyed by fire in September, 1895, but its construction was opposed on the ground that it would be injurious to public and private interests, because it would shut off part of a navigable stream from access to the lakes. After thorough investigation and a hearing of all parties in interest, the plans were approved as stated.

NEWS AROUND THE LAKES.

BUFFALO.

Special Correspondence to the Marine Record:

There has been trouble at the unfinished Michigan Street bridge on account of the driving of piles on the channel side of the abutments to protect them. The temporary bridge is so near that this makes it impossible to get through with the larger craft, so a complaint was made and the piles are being pulled up.

Coal freights have shaded off five cents to Lake Michigan ports and this is expected to be the beginning of the end. When vessels will see it better to remain idle than lose money or take long chances of doing so with iron ore, grain and coal practically at a stand still for medium sized tramp or wild steamers there is nothing to do but lay up and wait for brisker times.

Last Sunday the British bark Snowden arrived in New York and a German sailor with a penchant for the "Believers'" persuasion had turned all hands into a regular "Salvation Army Camp." When the pilot boarded her off Sandy Hook instead of shantying they were going around the decks psalm singing. There were a few backsliders in the course of a year's cruise, but the German got them into line again all right.

The steam barge C. F. Curtis, lumber laden, after passing through the International Bridge river draw with consort turned in the river to moor at the Black Rock dock. She drifted too near the foot of Squaw Island, struck and broke one of the Provincial Natural Gas Company's pipes and grounded. The natural gas escaped, throwing volumes of water 30 feet in the air and over the bow of the Curtis. The gas was shut off shortly afterwards.

About the nearest ten straight cargoes of wheat that ever were handled since wheat became a leading commodity of the world have come in this spring from the Canadian port of Fort William, says the Courier-Record. They were brought by the steamers Sauber, Manola, Rees, Curry, Oglebay, Uganda, Yuma, Yakima, Sitka and wooden Gratwick. The amount is 1,048,512 bushels, besides 34,320 bushels of oats on the Uganda. The commerce of the world might be ransacked for a straighter million bushels of hard spring wheat. It was invoiced at about 80c a bushel and was therefore worth a round \$800,000. The cargo of the Rees was the largest, and amounted to 152,155 bushels. It was worth \$121,103.85, according to the invoice, and is an example of what the northwest can do in the line of wheat raising.

CHICAGO.

Special Correspondence to the Marine Record.

The steam yacht Adele arrived here Friday from Muskegon. Capt. Simon O'Day brought her across Lake Michigan.

The Independent Tug Line's floating dry dock had the tug Viola in for repairs to stern bearing, the steam yacht Ollie for bottom cleaning and painting.

Capt. J. C. Raleigh took command of the Goodrich Co.'s steamer Iowa on Monday. Capt. Henry Stines will go to Manitowoc to bring out the steamer Virginia.

There has been such a decided increase in the passenger traffic on the Graham & Morton boats that is has been decided to inaugurate a daily steamer line between Benton Harbor and Chicago.

Capt. McGregor, of the M. H. Boyce, states that she has been temporarily withdrawn from the Ward line between Duluth and Buffalo, owing to light business. The Boyce is now at this port.

Thomas F. Joyce, the well-known purser of the Goodrich Trans. Co.'s steamer Atlanta, and Miss Marie Blanche Daily were married in Grand Rapids, May 18. We wish them much happiness.

At J. B. Bates & Co.'s shipyard the schooner Ada Medora received a new main mast and main and mizen topmasts, schooner Sophia J. Huff a new foremast and schooner John Nill a new jibboom.

H. W. Cook & Co. chartered the steamer Kalkaska for wheat to Cleveland at 11-2 cents, the steamer Tempest and consorts Coyne and Delaware for cedar ties, St. Joseph's Island to Chicago, at 6 cents.

The steamer Raleigh, owned by Weinman of Detroit, was libeled here last week on a claim amounting to between \$700 and \$800 preferred by the Sheriffs Manufacturing Co. The steamer was bonded and released.

The steamer Monteagle, drawing a little over 15 feet, spent an hour on LaSalle street tunnel Saturday. Immediate steps should be taken to lower the crown of tunnels crossing the river and we have several of them.

A large quantity of cedar ties have arrived here during the past few days. The steamer Adella Shores and consort M. C. Neff brought along 31,000 ties. The schooners John Kelderhouse, Winslow and America also brought large cargoes of ties.

The steamer Soo City, Capt. Michael Driscoll, of the Holland & Chicago Trans. Co., arrived here Monday from Holland on her first trip this season. She has been put in excellent condition for the excursion business between Chicago and Holland.

The steamer R. W. Williams, Capt. John Boyne, of the Williams Trans. Co., arrived here Tuesday morning from South Haven on her first trip this season. She will

make tri-weekly trips in connection with the company's steamer Glenn, which has been running since April 1.

J. J. Rardon & Co. chartered the steamer Phoenix for corn to Fairport at 11-8 cents, the steamer Italia for wheat to Buffalo at 13-8 cents, the steamer Bulgaria for flax seed to Buffalo at 11-4 cents, the steamer Aurora and consort Aurania for oats to Buffalo at 11-8 cents and the steamer Progress for corn to Buffalo at 11-4 cents.

The large schooner building at the yards of the Chicago Ship Building Co. for Capt. James Corrigan, Cleveland, will be launched about the end of this month, May 29 being mentioned. Capt. James and John Corrigan have always gone for big vessels, but this one, to be named the Amazon, is the biggest yet, and lays over anything of her class now on the lakes.

The Graham & Morton Trans. Co.'s sidewheel steamer City of Milwaukee, Capt. J. Stewart, arrived here from St. Joseph Tuesday morning on her first trip this season. She has undergone very considerable alterations and improvements during the winter and her saloon has been recarpeted and refurnished throughout. She is now one of the finest and best excursion steamers on Lake Michigan.

The schooner Ida, when going up the south branch of Chicago river Saturday morning in tow of the tug W. H. Wolf, had all three of her masts taken out of her close down to her deck load of lumber by collision with Jackson street bridge. The accident was occasioned by the bridge tender swinging the bridge on to the schooner. He had immediately before let the schooner Guido, in tow, through the bridge and did not notice the Ida coming along behind her.

The steamer City of Grand Rapids, Capt. Joseph Smith, arrived here Tuesday morning. She has been put on this season by the recently formed South Haven and Chicago Transportation Co. to run between South Haven and Chicago daily, leaving the dock at south side of State street at 10 a. m. daily, except on Saturdays, when she leaves at 2 p. m., and leaving South Haven daily at 9 p. m., except on Saturdays. She is licensed to carry 500 persons and has sleeping accommodations for about 75 passengers. She has been put in excellent condition. Capt. Smith who has charge is part owner and is well known as a very energetic old-time captain, and I wish him much success in his new venture.

DETROIT.

Special Correspondence to the Marine Record.

The libels against the Grummond steamer State of Michigan have been satisfied.

These lumber charters have been made here: Steamer Martini, five loads, Georgian Bay to Bay City; propeller Hayward and two consorts, Georgian Bay to Chicago at \$1.25, the boats will carry 1,700,000 feet; the propeller Cleveland and two consorts from Lake Huron ports to Ohio ports, going rates; the Ogemaw, for H. M. Loud & Co. for the season.

The steamer Riverside, which at one time was employed in the freight and passenger trade between Detroit, Wyandotte and the islands and also tried the excursion business out of Chicago, has been converted into a wrecking tug by L. P. & J. A. Smith of Cleveland and named Chauncey A. Morgan, in honor of the manager of their tug line at Cleveland.

For a certain class of tonnage the lumber trade is quite brisk as it would appear to be the desire of importers to get all of the lumber they possibly can across from Canada before the tariff is settled. Clarence A. Parker has taken hold of the lumbering charter business here and places cargoes by the score at improving rates. One large firm have moved their plant over to Byng Inlet on the Canadian side and will carry on operations there instead of in Michigan and perhaps it is a money making move too.

Frank E. Kirby, for the Grank Trunk road, owners of the car ferry Lansdowne, and William F. Daly, for the London Lloyds, who hold her insurance, are surveying her to fix on the amount of damage sustained by the steamer in her recent collision with the Michigan, owned by the Canadian Pacific road. On the port side of the Lansdowne 87 feet of upper works was carried away. The paddle-box and the starboard paddle-wheel went with it, but below the waterline no damage was done. It is thought that the damage will amount to from \$12,000 to \$15,000. The seamer will also be given two new boilers. She will be put in the Orleans street dock for repairs in a few days and her owners will pay 25 per cent duty on all the new work.

CLEVELAND.

Special Correspondence to The Marine Record.

Quite a few vessels have suspended their insurance this week, awaiting a brighter outlook in the freight market.

Mr. Robert Curr has returned from Duluth, having completed his superintendency of the building of the large steel schooner Constitution.

Acting Secretary of the Treasury Hon. O. L. Spaulding announces that the U. S. Revenue Cutter Johnson will be sold at public auction at the shipyard of the Globe Iron Works Co. at noon on Monday, May 31.

The masters of the Menominee and Mutual Lines of steamers speak very highly of the gas buoys placed on

the route between Ashtabula and Escanaba. They have already derived much assistance from them. This aid to navigators is known as the Pintsch system of gas-lighted buoys.

A shipper said this week that he cannot understand why owners are sending their vessels to the head of Lake Superior with coal at 20 cents when there is nothing in sight to come back. "If the oremen are unable to get business for their own vessels," he said, "there is not much chance for outsiders."

Under the auspices of the Euclid Beach Park Co. a ladies' bicycle race for prizes aggregating \$1,000 will be commenced on Sunday, May 30. The handsome little steamers Duluth or Superior will leave foot of Superior street several times a day. There are already quite a number of entries for the contest.

The steamer White Star and consort, Eva Robinson was chartered on Wednesday for ten trips from Thessalon, Georgian Bay, to Sandusky. The White Star is in charge of Capt. A. B. Slyfield, oldest son of Capt. L. L. Slyfield, who now remains ashore at Port Huron. Capt. Slyfield of the Detroit Liner City of Mackinac also belongs to this family and is a nephew of Capt. L. L. Slyfield.

The steel steamer Cadillac, after being released from Starve Island reef, was taken into Sandusky, where she discharged her cargo of grain and proceeded to this port for survey and repairs. After drydocking it was found that the bottom damage was rather extensive; say \$10,000 to \$12,000, involving a couple of weeks' work. The survey and estimates of cost of repairs were made by Mr. Robert Logan, representing the owners, the Cleveland Cliffs Co., and Mr. Joseph R. Oldham, for the underwriters.

The new steel schooner Constitution, just turned out from the yards of the American Steel Barge Co., W. Superior, Wis., carried on her maiden trip 4713 tons of iron ore, and allowing the usual 1 per cent on this for wet ore, the cargo would show 4,760 gross tons on a mean draft of 16 feet 4 inches. To be certain of not touching bottom in the "Soo" River, 65 tons of her cargo was lightered, which she re-loaded after getting through all well. Mr. Robert Curr, of this port, superintended the construction of the new vessel for her owners, who feel well satisfied at her large carrying capacity.

The present facilities of the Cuddy-Mullen Coal Co. miners and shippers of steam coal, with general offices at Cleveland, are as follows: Cargo department, Erie, Pa.; car dumper, Cleveland; car dumper and for fueling, eight pockets having 1,000 tons capacity, three steam derricks and a lighter. The car dumper is also used at Erie for fueling purposes. In Detroit River the fueling arrangements are all that could be desired, as at Amherstburg there are four pockets and three steam derricks. At Sandwich, ten pockets and two steam derricks. At Sault River branch has two docks at Detour equipped with pockets and steam derricks, formerly known as the Anthony and Wason docks.

FLOTSAM, JETSAM AND LAGAN.

The whaleback steamers Colby and Bartlett are in ordinary at West Superior.

The tug Joe Dudley was sold at Duluth Monday by the United States marshal for \$2,700.

Donald McLean, master of the steamer City of Duluth, has been fined \$50 by the Collector of Customs at Duluth for neglecting to surrender his license for renewal.

The first cargo of iron ore to be shipped to Philadelphia from Imataca, Venezuela, arrived there last week, on the steamer Mercedes (Br.), which had 1,005 tons on board.

The steamer Niagara, building at F. W. Wheeler & Co's yard for J.L. Crosthwaite of Buffalo and others, will probably be ready for launching by the last of the month.

S. I. Kimball, general superintendent of the Life Saving Service, advertises in this issue of the Record for bids on annual supplies for the service for the fiscal year ending June 30, 1898.

A shipment seldom recorded is whate from Toledo to Chicago. Mr. B. L. Pennington, managing owner of the large steamer C. B. Lockwood secured such a charter this week.

Last week three steel steamers delivered 11,246 tons of coal at Sheboygan, Wis.—the Andrew Carnegie 4,897 tons; and the Harvey H. Brown, 3,532 tons. The cargoes of two were bituminous, that of the last named anthracite.

Marine business is unusually brisk at Portage Lake ports. Heavy copper shipments are being made from Hancock, Dollar Bay and Lake Linden, and the mining companies are taking advantage of the low freight to bring heavy shipments of coal.

Capt. James H. Green of the Lackawanna line steamer Scranton stated at Milwaukee that the vessel was struck by lightning on Lake Erie. The fore-topmast was shivered for 15 feet and the fore hatch broken open. No other damage was done.

Sand washing through a break in the south pier of the entrance of the canal connecting Lake Superior with Lac la Belle in Bete Grise Bay has filled the channel so that a depth of only 5 feet of water now exists. The tug Jay Morse attempted to reach Lac la Belle a few days ago, but could not cross this bar.

Mr. A. W. Strong, a local promoter, of companies, announces that capitalists from the east and west are willing to improve the lake front east of the river in the way of new docks and freight houses to the extent of \$1,000,000

just as soon as the ownership controversy between the city and the railroad corporations is settled.

Orders were issued this week to start out all of the vessels of the Inter-Ocean Transportation fleet except the Maryland and Manchester. The first of the fleet will be the steamers Manhattan, Merrimac, Massachusetts, Minnesota and barge Metacomet. They are to deliver ore at North Chicago, South Chicago and Milwaukee, but the bulk of it will go to North Chicago.

The Nickel Plate R. R. Co., B. F. Horner general passenger agent, have just issued a handsome little colored pamphlet entitled "Summer Outings," and showing a view of the summer resorts which the railroad passes through. The service on the Nickel Plate is beyond criticism and there is a no better track between New York and Chicago by which pleasure seekers or travelers could journey.

Two tugs were destroyed by fire between Saturday night and Sunday morning—the Alfred Mosher at Sturgeon Bay and the Irene at Menominee. The Mosher was built at Chicago for Capt. J. S. Dunham in 1863. Her present owners are Helmholtz, Walker & Dumann, of Menominee. She was valued at \$3,500 and insured against fire for \$2,000. The Irene belonged to the Menominee River Shingle Co. She was built at Marinette in 1893 and valued at \$2,000, with no insurance. Part of the dock at which the Irene lay was burned, together with twenty cords of wood piled upon it.

An item appeared in our issue, April 29, page 5, stating that Major Clinton B. Sears, Corps of Engineers, U. S. Army, in charge of river and harbor improvements on Lake Superior, would have all range lights, stakes, etc., placed in Duluth Superior harbors within a few days. The above item was palpably in error and misleading, as neither Major Sears or the United States Engineer Office has anything to do with the placing of range lights or stakes at that point, nor would that office wish to be held responsible for the work, as it is in the Light-House Board's bailiwick.

TREASURY DECISIONS RELATING TO VESSELS.

17872—Maltreatment of Seamen.—(Circular No. 39.

Treasury Department, Bureau of Navigation,
Washington, D. C., March 5, 1897.

To Collectors of Customs, Shipping Commissioners, and others:

Your attention is invited to the provisions, concerning the maltreatment of seamen, of the act approved March 3, 1897, entitled, "An Act to amend the laws relating to navigation." The act will take effect July 1, 1897.

Sec. 18. That section fifty-three hundred and forty-seven of the Revised Statutes be amended to read:

"Sec. 5347. Every master or other officer of an American vessel on the high seas or any other waters within the admiralty and maritime jurisdiction of the United States, who, without justifiable cause, beats, wounds, or imprisons any of the crew of such vessel or withholds from them suitable food and nourishment, or inflicts upon them any cruel and inhuman punishment, shall be punished by a fine of not more than one thousand dollars, or by imprisonment not more than five years, or by both."

"Nothing herein contained shall be construed to repeal or modify section forty-six hundred and eleven of the Revised Statutes."

EUGENE T. CHAMBERLAIN,

Approved: J. G. CARLISLE Secy. Commissioner.

17873.—Registry of Vessels.—Circular No. 46.

Treasury Department, Bureau of Navigation,
Washington, D. C., March 5, 1897.

To Collectors of Customs and Others:

Your attention is invited to the following provisions, concerning the registry and ownership of vessels, of the act approved March 3, 1897, entitled "An Act to amend the laws relating to navigation." The act will take effect July 1, 1897.

Sec. 10. That section forty-one hundred and sixty-five of the Revised Statutes be, and is hereby, amended to read as follows:

"Sec. 4165. A vessel registered pursuant to law, which by sale has become the property of a foreigner, shall be entitled to a new register upon afterwards becoming American property, unless it has been enlarged or undergone change in build outside of the United States."

Section 16 of the act also repeals sections 4133 and 4134 of the Revised Statutes, which read as follows:

"Sec. 4133. No vessel shall be entitled to be registered, or, if registered, to the benefits of registry, if owned, in whole or in part by any citizen of the United States who usually resides in a foreign country, during the continuance of such residence, unless such citizen be a consul of the United States, or an agent for and a partner in some house of trade or copartnership, consisting of citizens of the United States actually carrying on trade within the United States."

"Sec. 4134. No vessel shall be entitled to be registered as a vessel of the United States, or, if registered, to the benefits of registry, if owned in whole or in part by any person naturalized in the United States, and residing for more than one year in the country from which he originated, or for more than two years in any foreign country, unless such person be a consul or other public agent of the United States. Nothing contained in this section shall

be construed to prevent the registering anew of any vessel before registered, in case of a sale thereof in good faith to any citizen resident in the United States; but satisfactory proof of the citizenship of the person on whose account a vessel may be purchased shall be exhibited to the collector, before a new register shall be granted for such vessel."

EUGENE T. CHAMBEILAIN,

Approved: J. G. CARLISLE, Secy. Commr.

A NEW CONTRACT.

The Polson Engineering and Ship Building Co., Toronto, have taken a contract to build a side-wheel steamer about 125 feet long, for the freight and passenger service on Pembroke Lake. Her cost will be about \$20,000 and she will be built to the order of a Pembroke syndicate.

TUGS FINED AT DULUTH.

The Barry tugs, Industry and Prodigy, were fined \$1,000 each at Duluth on Tuesday morning for sailing from Bay City without proper inspection papers. The firm claims the fine will fall on James Davidson, the shipbuilder, for delivering the boats in that condition. Bonds were given for the payment of the fines.

As if this was not enough the collector of customs fined B. B. Inman of Inman's tug line, \$500 for carrying passengers on tugs without license.

DUNKIRK HARBOR IMPROVEMENT.

Dredging at Dunkirk is being prosecuted vigorously. The contract calls for the work to be completed by July 1, 1898. A basin, 2400 feet long by 1000 feet wide, is to be dredged and a channel 2000 feet long, 330 feet wide at the outer end narrowed to 200 feet at the piers and expanded to 330 feet again at the basis. It is figured that 550,000 cubic yards of earth and 80,000 cubic yards of rock must be removed.

A GREEN BAY CHART.

The Hydrographic Office, U. S. N., Washington, D. C. has just issued an excellent chart of Green Bay and its approaches. We have never seen a more inclusive and perfect delineation of any section of water and better still it is thoroughly up-to-date. The price of the chart is we learn \$1.25.

A NEW DEVICE.

If a new appliance, which was recently fitted to the steamboat Pequot of the Providence & Stonington line, is generally adopted by owners of steam craft, admiralty courts will find their work much simplified when cases of collision between steam vessels come up for adjudication. The question of right or wrong and the matter of damages almost always hinges on what signals were sounded, and there always is dispute.

One party, for instance, will urge that he sounded one blast and the other will assert with equal positiveness that two were given. Both, of course, cannot be right, but it is often very difficult for a judge, who has to listen to the testimony of fallible mortals, to tell whose evidence is biased or incorrect, and whose is not.

The device with which the Pequot is fitted is an impartial witness. Install it on board a vessel and the silent machine will register every note that is sounded from the whistle and will stamp on a strip of paper the very second in which the whistle cord was pulled; it will tell too whether one blast was sounded or two.

The apparatus is so very simple that one wonders that it was not thought of before. It consists of a vacuum pipe run from the whistle to a diaphragm with clockwork attachment. The whole is inclosed in, and as the whistle is sounded the time is registered.

A BOTTLE PAPER.

According to a special from Bayfield, Wis., five miles south of that harbor, half imbedded in the sand on the beach, James Taggart, a lumberman, on Tuesday discovered the first message from the forty persons who perished in the wreck of the steamer Manistee, nearly fourteen years ago. It was a note, carefully inclosed in a heavy glass bottle. The writing had faded with the lapse of years and the glass of the bottle was worn thin with its constant beating against the sandy shores of Chequamegon Bay. The message on the note was as follows:

"November, 1883.

"Left Bayfield at 1:10 p. m.; just in sight of Michigan lighthouse. We may not survive the storm. Heavily laden and hard to turn in the storm. Captain McKay, steamer Manistee."

The writing had faded so as to be almost illegible. There is a general impression in this town that the message is genuine. The action of the sand and waves on the bottle shows that it has been tossed around the beach for a long time. The faded writing also proves conclusively that the note was not written a few weeks or months ago for the purpose of a hoax.

The Manistee was a wooden steamer, and was owned by the Lake Michigan and Lake Superior line and traded between Chicago and Duluth. On the night she went down she was on the way from Bayfield to Ontonagon, on her trip to Chicago. It was to have been the last trip

of the season, and it was late in November. A north gale set in shortly after the steamer left port, and the thermometer registered near the zero mark.

The fate of the Manistee was never known. The steamer City of Duluth, of the same line, left Bayfield just ahead of the lost ship, and for a long time that night saw her lights. When last seen she was clear of the group of islands at the mouth of the bay, known as the Apostles.

When the non-appearance of the Manistee made the officials of the line anxious a searching expedition was fitted out, but the only result of this expedition was the finding of some wreckage from the lost boat. Out of the forty persons on board when she went down no one was left to tell how the steamer sank, nor were there any bodies washed ashore. With the exception of the floating wreckage nothing was ever found from the steamer until Taggart picked up the bottle today.

A belief has been general that the machinery of the steamer gave out that night in the gale, and the spray had frozen over the falls to the life boats so that it was impossible to lower them to save the crew. This is further strengthened by the fact that the City of Duluth went through the gale all right. The cargo of the Manistee was largely mill stuffs, and therefore she could not have been over-deep in the water.

Capt. John McKay, who was in command of the steamer Manistee, was a Cleveland man and was a brother of Capt. George P. McKay, manager of the Menominee and Mutual steamers and treasurer of the Lake Carriers' association, who takes but little stock in the story.

RIVER TUG BOATS THIRTY YEARS AGO.

How the famous old Detroit river tugs did make money during and for eight years succeeding the close of the war. Figures on the earnings of the Detroit & St. Clair Towing Association for the year 1866, compiled from old ledgers, are proof conclusive of this, says the Detroit Free Press. This association was really a pool made in the spring of each year, the papers for which were usually drawn up by Henry B. Brown, now United States supreme court justice; William A. Moore and the late John S. Newberry. In that particular year thirty-three tugs were in the agreement. Some were big money makers; others did not amount to a pinch of snuff. The net earnings were divided at the end of the season, based entirely on the earning capacity of the respective tugs. It mattered not that some earned little or nothing—their owners were reimbursed to an extent sufficient to satisfy them. The object of this pool was the maintenance of towing rates at a figure which in those days was considered fair. Cut-throat competition for towing was thus avoided.

As in those times the bulk of the lake commerce was handled in schooners, there was work enough for all in that line alone. These were the tugs and their net profits that year: Satellite, \$23,322; Kate Moffat, \$23,159; Prindville, \$17,909; Kate Williams, \$16,314; I. U. Masters, \$15,331; Bob Anderson, \$15,662; B. B. Jones, \$16,494; Hector, \$14,763; McClellan, \$13,512; Winslow, \$12,539; Mayflower, \$12,393; W. K. Muir, \$11,478; W. B. Castle, \$10,043; John Martin, \$10,818; George H. Parker, \$9,910; George N. Brady, \$9,959; E. M. Peck, \$9,256; Constitution, \$8,961; Anna Dobbins, \$8,211; Tawas, \$9,889; L. L. Lyon, \$9,887; Zouave, \$7,942; Park, \$9,902; Michigan, \$6,235; Samson, \$6,358; Red Eric, \$4,206; T. D. Dole, \$3,051; Dispatch, \$2,093; Eclipse, \$2,519; Stranger, \$1,771; S. S. Rummage, \$1,481; Dart, \$240. The Eagle lost \$95 on the season, but was given something out of the association to keep her quiet.

Imagine the Satellite and Kate Moffat earning much more than half their value in the single season. This of wooden steamers that were pigmies by the side of the mammoth steel freighters afloat today, yet making money that would cause the owner of one of the modern freighters to jump out of his seat if he had before him a prospect of clearing as much. The Satellite in those days was commanded by Capt. Hi Ames, now living in well earned retirement on Harsen's island. He could get more out of a tug and her crew than anyone around these parts. He was personally popular, and this, perhaps, had something to do with his effectiveness; but he was also willing to work night and day, and had a keen scent for a schooner. Besides this, he was a first-class tugman, handled his tug and tows with a minimum of accident, and in every way acquitted himself creditably.

Second only to him was Capt. Leon Holt, who came from the Cape Vincent region. He brought out the tug Champion, still in existence, the most powerful tug that ever towed on the Detroit River. Thousands have seen the picture scattered about the city representing the Champion towing a long string of schooners down the river just below Windmill Point light. Long tows were common with her. She once towed twelve schooners up the river, through the Ft. Gratiot rapids and out into Lake Huron, where they cast loose and set sail for their destinations. For that tow she got about \$700. The achievement has never been equaled by another steamer.

The panic of 1873 put a stop to the big earnings. For eight years succeeding it the tugs did little or nothing. Business picked up somewhat afterward, but the schooners were being supplanted by steamers, and those remaining were cut down into consorts. They are scarce these days, and the tugs that remain have a precarious existence towing rafts and wrecking.

CONTROLLING THE MISSISSIPPI. DIFFICULTIES OF THE PROBLEM WHICH HAS SO SEVERELY TAXED AMERICAN EN- GINEERING SKILL.

Modern Machinery, Chicago, has for its leading feature in the May number, an illustrated article on "The Control of the Mississippi," in which is presented clearly for the general reader, the difficulties of the problem which has so severely taxed the skill of American engineers. The features of the plan proposed by Captain Eads and others are outlined. Referring to the peculiar nature of the river and its floods the writer says:

In addition to its habit of rising too high annually, the Mississippi is a very crooked, restless, and curious river. It caves off its banks on one side, and piles up against on the other. It makes detours east and west, exploring for a dozen miles or so, then curving back makes a circuit of twenty-five miles in which it has progressed southward only one mile. Sometimes it will even absorb a section of a levee. While the river is high there is little caving, but as it falls the bank tumbles in. As the river is nearly all bend, having very few straight reaches, the banks can, by courtesy only, be called terra firma; and the levees built upon them share this impermanent character. In an editorial once on the vagaries of the Father of Waters, the late George D. Prentiss said that God made laws to govern everything except the Mississippi. That He told to go and do as it pleased; and, he added, "it has been doing so ever since."

It has been compared to the Nile when solutions of these problems have been sought, but the Nile, which is also a silt-bearing river, takes a straight course to the sea, while the Mississippi takes as long a time to get to the ocean as possible. The reason for it is that the latter river carries its own obstructions with it, washing out the decayed vegetation of the tamarack swamps of Minnesota, the clay from the mountains of the upper Missouri, and the pulverized soil of the prairies. It carries all this matter held in solution until too heavy to carry, then drops it in heaps, forming bars of sand and clay and loam; and since it takes less energy to go around these deposits than to go through, it goes around. The Nile descends a primeval desert not of its own making, and consequently when the floods fall from the heights of Kilimanjaro and from the Victoria Nyanza and strike the sands of the desert below Nubia, it cuts a straight channel to the sea.

Once turned from the path of rectitude the tendency of a river is to increase the bends rather than to diminish them, as the upper side of the curve, encountering the obstacle of the bar, keeps on depositing sediment at that point until a peninsula is formed, around which the water flows with increasing erosive power on the outer edge. The water in going around a bend has an action which has its analogy in the inner and outer wheels of a vehicle. The outside wheels must turn faster than the inside, and if the turn is sufficiently sharp the inside wheels come to a stop. So in the Mississippi the water sweeps majestically around the outer margin of the bend, while about the shores of the bars and peninsulas it has but a sluggish motion. Floods often cut across these bars and form others, so that the channel is constantly changing.

A NEW TYPE OF DREDGE.

The problem of maintaining a channel in the Mississippi river at low water is now believed to be solved by the use of a new and remarkable kind of dredge—a machine which, as described in the Scientific Press, San Francisco, will go through a sandbar at a speed of from five to ten feet a minute, cutting its way through a solid bank and leaving behind it a channel forty feet wide and twenty feet deep. Of course, it could not do its work at such an amazing rate as this if it were not for the water which it has to work with—this, in fact, is the secret of the whole performance. In front of this machine are six intake pipes, turned downward, and surrounding each of these is a cylinder fitted with knives and kept in revolution all the time, so that the knives cut and chew up the sand and mix it with the water. In this way the process goes all around the intake pipes, and in the later the suction of great steam driven centrifugal pumps is pulling away at the loosened mass of sand and water, immense solid streams of debris flowing in the pipes at a rapid rate. It is assumed that this method of maintaining low water navigation is practicable in all alluvial streams—applicable, in fact, to the Missouri, to the Illinois, to the Sacramento, the Volga, the Danube,

the Hoogly, etc., engineering skill being able to calculate to the fraction of a foot what speed the current requires through the pipes to carry the sand in solution.

IMPROVING THE ST. LAWRENCE ROUTE.

The Dominion Government has let the contract for deepening the waterway from the head of the Galoups Canal to Prescott. This will give a distinctively Canadian channel completely outside and independent of American waters. The Canadian Government will spend \$2,000,000 in the work between Prescott and Iroquois, and the result will be very important from a commercial viewpoint.

SLOW UP THROUGH THE PORTAGE CANAL.

Capt. Barker, whose dredge is at work in the Portage Canal, has made a request that all vesselmen passing through there with tows call upon one of his tugs for assistance in passing his dredge, thereby preventing such accidents as happened to the schooner James Mowatt a week ago.

THE TURBINIA.

The Shipping World, of London, England, says: "With the further particulars now before us we have no hesitation in saying that the speed of 32-34 knots will yet be exceeded by this vessel, as it is evident that with a large steam pipe greater pressure can be got at the H. P. turbine. When running at the "record" speed with a 4 in. steam pipe the boiler pressure of 210 lbs. was reduced to 165 lbs. at the high-pressure turbine, a drop of 45 lbs. which it is hoped to reduce to 20 lbs. when the main steam pipe of larger diameter is fitted, and as the boiler is capable of easily supplying the extra amount of steam the new arrangement should mean an increase of about 20 per cent. in i. p. h. At the trials mentioned the intermediate turbine

BIDS ON DREDGING.

E. H. Hall, of Detroit, underbid his competitors so far on the dredging contracts let recently by Col. G. J. Lydecker for improvements at Belle River, Clinton River and Black River, that his competitors hint he cannot get out whole on them. The price per yard, scow measure, bid by the different firms were as follows: On Black River, Hall, 8 cents; Carlin & Cram, Detroit, 25 cents; McCullom & Lee, Port Huron, 24 cents, and Jas. Rooney, Toledo, 14 cents. On the mouth of the Black River, 10, 28, 29½ and 21 cents, respectively. On the Belle River, 11, 20, 24 and 14 cents, respectively; and on Clinton River, 15, 24 and 18 cents. McCullom & Lee not bidding on the latter work.

CAUTIONARY NOTICE—MASTERS AND OWNERS.

United States Engineer Office Telephone Building,
Detroit, Mich., May 14, 1897.

To the Editor of the Marine Record:

Considerable complaint has been made regarding the movements of vessels through the improved 20-foot channel in Lake St. Clair, especially as respects speed. This dredged cut has a uniform width of but 800 feet, with soft bottom and sides, and the practice of running through it at high speed threatens the durability of the improvement as well as the safety of navigation. The question of promulgating restrictive regulations has recently been under serious consideration, but the Secretary of War has now advised me that he hopes a cautionary notice to vessel owners and masters against high speed in this cut may be all that is necessary to secure their co-operation in this matter, and thereby protect the interests of a navigation in which they are so deeply concerned.

G. J. LYDECKER,
Lt. Colonel of Engineers, U. S. A.

FREIGHT RATES FOR WATER TRANSPORTATION TO AND FROM LAKE SUPERIOR.

ITEMS.	Designation.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.
Coal.....	Net Tons.	\$.90	\$.70	\$.47	\$.45	\$.43	\$.41	\$.40	\$.40	\$.37	\$.32
Flour.....	Barrels.	.29	.17½	.18	.13	.15	.16½	.17	.13	.14	.11
Wheat.....	Bushels.	.07	.03½	.04	.03	.04 6-10	.03 6-10	.02 8-10	.02½	.04 4-10	.02½
Grain.....	"	.07	.04½	.03½	.02	.03½	.03½	.02¾	.02¾	.04 5-10	.02½
Corn.....	"	.07	.04½	.03¾	.03	.03½	.03¾	.02¾	.02¾	.04 5-10	.02½
Manufactured Iron.....	Net Tons.	2.35	1.80	2.10	1.34	2.50	2.15	2.00	.90	1.50	1.40
Pig Iron.....	"	2.35	1.30	1.45	1.35	1.17	1.23	1.30	1.15	1.05	1.05
Salt.....	Barrels.	.18	.16	.18	.15	.18	.15	.12	.12	.13	.15
Copper.....	Net Tons.	2.60	2.35	2.25	2.38	2.00	1.40	1.75	1.95	1.66	1.95
Iron Ore.....	"	1.75	1.28	1.14	1.10	.98	1.00	.80	.70	.82	.82
Lumber.....	M.Ft., B.M.	4.00	2.80	2.70	2.38	2.70	2.95	2.35	1.90	2.00	1.80
Silver Ore.....	Net Tons.	3.00	1.90	1.90	2.25	2.25	2.25	2.25	2.25	2.33	2.33
Building Stone.....	"	1.15	2.05	2.02	2.00	2.00	1.67	1.36	1.28	1.20	1.50
Unclassified Freight.....	"	4.00	3.00	3.00	2.75	3.58	3.60	3.00	2.75	2.50	2.30

had a pressure of 50 lbs., this being reduced to about atmospheric pressure at the L. P. turbine, with a vacuum of 13 1-2 lbs. We add that the exhaust is 36 in. in diameter, that each of the three steel shafts is 2 1-2 in. diameter, and carries three propellers, each of 18 in. diameter, or a total of nine propellers, the twenty-seven blades being of manganese bronze."

OBITUARY.

Capt. Peter Cronley, for many years a well-known vessel and yacht master, passed quietly away last week at his home in Oswego, N. Y. He suffered a stroke of paralysis, from which he never rallied. Capt. Cronley was born in Oswego about 67 years ago. When a young man he began life as a sailor and rapidly rose until he became master of a vessel. He was successively captain of the schooners O. V. Brainerd, Maj. Anderson, Admiral, Mediator and John T. Mott. The Admiral was lost on Lake Ontario. Capt. Cronley also sailed in the steam yachts Nautilus and Feiseen. Several years ago he retired from the lakes and has since done little active work.

Twenty years ago, when canal vessels were to be met in every port, Capt. Cronley was known from Ogdensburg to Duluth. He commanded some of the smartest vessels afloat at that time, and because of his jovial disposition, had hosts of friends, who will learn of his death with sorrow.

WHAT'S THE DIFFERENCE?

The Evening Wisconsin takes advantage of a palpable error that occurred in connection with an item concerning the old craft Clement. It was the intention of The News Tribune to describe her as having been the first and only side wheel steam barge ever built on the lakes. The word steamboat appeared instead of "steam barge."

CLYDE SHIPBUILDING INTERESTS.

It is safe to say that even among those otherwise specially conversant with marine affairs generally, credence would hardly be given to figures from a recent article in Cassier's Magazine by Robert McIntyre, and yet there is no reason to doubt their authenticity. Referring more particularly to the Clyde, the following statement is made:

"The capital sunk I should not like to estimate in black and white, but if I said that it took a million and a quarter pounds a year to pay the wages of the shipbuilding and marine engineering operations in the upper reach—one-half, that is—of the Clyde, will anybody believe me? And yet anybody can satisfy himself on the point. Of marine engineers alone there are over 9,000 employed on the Clyde, and in the boiler shops slightly over 3,000 more men; in the shipyards a full muster of fitters, platers, riveters, caulkers, carpenters, joiners, and laborers would add more than 30,000; and over and above would have to be included an army of draughtsmen, clerks, timekeepers, and counters in proportion. These are official figures. Belfast, where no official figures are available, may safely be set down as employing 6,000 men, and about half that total is the measure of the industrial activity in one commercial capital of Ireland. Taking the extensive repair work into consideration, 5,000 men represent about the total on the Mersey; in the Royal Dockyards at Pembroke, Davenport, Portsmouth, Chatham, and Sheerness, 23,049 men are employed, of whom about a third are in the engine shops; and on the Thames, which is, despite its decadence in shipbuilding, an engineering center, the total number of men employed in the industry is approximately 8,000—3,000 shipworkers and 5,000 engineers. Of the northeast coast of England I am unable to speak with authority, because the official figures of the men employed are not at hand as I write; but I should say that the total, including the Humber, is not far short of 70,000, of whom about two-thirds are shipyard hands. The figures I have given refer purely to the shipbuilding and engineering departments."

MITER SILL AT THE "SOO" LOCK.

The miter sill is the key to all enclosed docks, canal locks, etc., the world over. The officers in charge of such property always take the greatest care to learn that no vessel attempts to enter where her draft will not allow a little to come and go on over the sill, and usually there is a penalty attached to the act, for anyone who is daring enough to risk all consequences, though on a dark night or with a ripple of a sea on, when marks cannot be determined very closely, vessels frequently name three or four inches less than their draft on the strength of feeling assured that the officer in charge had allowed a liberal factor of safety in limiting the draft at which the vessel could clear the miter sill.

This ground was gone over to a greater or less extent at the "Soo" lock some years ago, and if we remember right, the sill was lowered somewhat. The subject comes up again at this time, according to the following correspondence: Reports from the Soo indicate that the sill of the movable dam above the dock has been encountered by the bottoms of passing vessels. The Yuma and Queen City, both steel steamers, have rubbed against it. Captain Daniel Buie, of the Yuma, claims that his vessel was not drawing a fraction of an inch over sixteen feet when she passed through. He reported: "This striking was caused from filling the lock, which lowered the water in the canal about eighteen inches. Some regulations governing the filling of the new lock should certainly be put in force; otherwise there will be considerable damage inflicted this year to vessel property in the canal, that will more than offset all the supposed advantages of the patrol service below the canal. After I got out of the lock and when in the jaws of the canal piers, about 1,500 feet, more or less, below the lock, the vessel again struck bottom. It is, of course, expected by everybody that there is plenty of water at this point. We rubbed heavy. I will examine the bottom as soon as unloaded. It is a burning shame to think that this Government work should be pronounced all right, and the channel declared open to deep-laden vessels, when a pile of unknown rock is left directly in the middle of this important channel and just about a stone's throw from what we are told is the greatest lock in the world. There are obstacles just below the Canadian lock, but the people over there are interested enough in the welfare of vessel property to tell us of the dangerous spots and also to put stakes on them."

Captain Thomas Wilson, owner of the Yuma, wrote to Col. Lydecker, in charge of the work. Concerning the shoal, the colonel said it had been found last November; that there was a channel on each side of it; that the officials of the canal took pains to notify all passing vessels of its existence; that on April 22 he had received word that the outfitting of the dredge had been completed and that he had ordered her to begin removing the shoal. In the meantime every precaution had been taken to make masters aware of its presence.

When Col. Lydecker wrote to Supt. E. S. Wheeler, of the canal, inclosing the letter of Capt. Wilson, Mr. Wheeler replied in substance as follows:

"I have examined the matter and find that the Yuma did rub heavily on the sill of the movable dam. The low water at this time was not caused wholly by the filling of the lock, since this was done before the Yuma reached the movable dam and long enough so that the oscillations must have nearly ceased. There were, however, on this day fluctuations in the water level in the canal, caused by outside influences and amounting to as much as two feet. Capt. Buie, of the Yuma, tried to cross the sill when the water was low.

"On the first trip of the Yuma Capt. Buie had been fully instructed by Supt. MacKenzie not to go on the sill when he saw the water was low. Foreman McDonald heard and remembers the conversation. Capt. Buie disregarded his instructions and went on the sill when he could plainly see that the water was low.

"The Yuma also grounded on the shoal at the foot of the lock. When she was starting out of the lock, Assistant Superintendent Rains, who was on duty, told Capt. Buie to keep close to one or the other of the piers so as to avoid the shoal in the middle. Supt. MacKenzie stood by and heard the order. Capt. Buie paid no attention to it, kept exactly in the middle and struck the shoal. It is very probable that Capt. Buie had been notified of this shoal several times before.

"I observe that Capt. Buie does not say that he was

not notified concerning this shoal, but he evidently wishes to have the inference drawn that he was not notified."

Supt. MacKenzie says that on that date the wind was from the east, and an east wind causes low water in the canal, varying according to the strength of the wind. Below the lock the variation is from three to six inches, and above the lock from one foot to two. The water rises and falls suddenly, which was the case that day. The lowering of the water was not caused by the filling of the lock, as the lock was filled before the steamer reached the movable dam. At all times when there are vessels in the vicinity of the bridge the lock has been filled with only two valves to prevent a sudden fall in water.

Col. Lydecker says that the sill will have to stay where it is the remainder of this season, at least. He continues:

"The movable dam above the lock is necessary as a protection to the canal. Should a passing vessel through any cause whatever break the upper gates, direct connection would be established right through the canal between Lakes Superior and Huron. The water would rush through even faster than it does over the rapids, and the canal be rendered utterly useless for the passage of vessels.

"So the movable dam is a necessity. It is in the form of a bridge, from which are depended, on chains, long steel wickets, perhaps twenty in number, that rest against the sill on the bottom, which is made of timber with a concrete foundation. Thus is the water held in check when necessary. This is the one built originally for the old Weitzel lock. The contract for the completion of the Poe lock extended into this season, whereas, at the solicitation of the vessel owners, and by the paying of a bonus to the contractors and doubling the working force and using it night and day, the lock was completed, though in a rather crude state, in time to allow its use several weeks last fall. That was why the new sill was not built.

"However, a new sill will be put in place next winter, and until that time the owners will have to wait. At the ordinary stage of water this season, with no influence to disturb the rates, there are seventeen feet over it."

THE TWO PASSENGER BOATS.

The Northern line steamer North Land went in dry-dock last week and the North West will go in this week. Both vessels are receiving overhauling at the yards of the American Steel Barge Co., preparatory to the season's business.

UNITED STATES AHEAD.

"At the recent annual meeting of the British Iron and Steel Institute, American competition was one of the chief points of discussion. President Martin spoke of the enormous output of the leading American steel works and pointed out that the Americans were out-distancing the British in the use of steel. He instanced the steel buildings being erected in nearly all the large cities of the United States and urged lower freight rates, saying that the present cost of transportation was severely handicapping British industries, as the rates, not only in America, but in Belgium and Germany, were greatly below the English rates."

ANOTHER RECORD BREAKING PASSAGE.

The Cunard line steamer Lucania, Capt McKay, which left New York May 8, clearing Sandy Hook lightship at 11:55 a. m. that day, arrived at Queenstown 7:24 a. m. on Friday, after a passage of five days, fourteen hours and fifty-four minutes, during which, over the distance steamed, 2,939 knots, she made the best time on record, 21.80 knots per hour. During two days steaming the Lucania maintained an average speed of twenty-two and one-third knots per hour. The long distance steamed was due to the fact that the Cunarder ran south in order to avoid ice.

DULUTH-SUPERIOR FREIGHT AGENTS.

The freight agents of W. Superior and Duluth, who have had a joint organization for mutual purposes, have separated, and while continuing the head of Lake Superior organization and retaining its membership in the national association, the two sides of the bay are now separately organized. The Supreme branch, Lake Superior Local Freight Agents' Association, has named the following officers for the coming year: President, John P. Dooley, of the Eastern Minnesota; vice-president, Frank L. Bacon, Omaha; secretary, S. R. Brown, Terminal; treasurer, A. L. Palmer, St. Paul and Duluth.

AN AERIAL SMUGGLER.

Surely no person of ordinary sanity would be eccentric enough to convey a diamond stud from point to point by means of a carrier pigeon when our postal arrangements and express companies offer every possible safety and facility for such a person, and especially if the stone was of any value, as diamond studs go.

The report says that as the steamer Charles Stewart Parnell was proceeding east on Lake Erie, on Monday, bound from Chicago to Buffalo, two carrier pigeons lighted on the vessel presumably to rest. They appeared to be two ordinary pigeons and the captain got a pistol and shot one of them before he discovered that they were homers. The other flew off to the westward.

On examining the dead bird the discovery was made that it was carrying a curious message, consisting of a diamond stud. There was no letter with it, but the silver band on its leg bore the initial letter "T," and the number "43,800."

Capt. Griffin is of course very sorry that he shot the bird and is taking this way of discovering its owner.

Admitting that the story is correct, as far as it goes, then Capt. Patrick Griffin is likely to be ahead one dead pigeon and one diamond stud, for in place of underground this is a sort of overhead method of smuggling between Canada and the United States. Such being the case, the original owner will not apply for the restoration of his property.

However, as the circumstance has been widely telegraphed across the country, there may be a sequel to the story. Furthermore, these are the days of flying homing pigeons on the lakes, especially Lake Erie, two or three of the passenger lines having now their regular coop of birds trained for flight between the ports they frequent, and it is just possible that some risky individual undertook all chances in sending a diamond stud by the speediest and most direct route, although the most dangerous one.

Later.—Capt. O. Groll, Detroit, secretary of the Central Homing club, states: "The bird belongs to G. A. Reinhart, of Buffalo, N. Y. The 'silver' band was only aluminum and the diamond was probably in the captain's eye. Perhaps he got a grain of powder in his eye when shooting the pigeon. These bands are furnished by the National Federation of American Homing Pigeon Fanciers, and are placed on the bird's leg for registering purposes. The letter T signifies the year the bird was hatched (1896)." Hence a good story is spoiled and Capt. Griffin has a bushel of free advertising to his credit.

EASTERN FREIGHT REPORT.

According to the last weekly freight report as furnished the Marine Record by Messrs. Funch, Edye & Co., New York, chartering for grain cargoes has been light for prompt boats; the enquiry, as noted in our last report, turning to later months, notably August, for which term several boats have been placed. The demand for large steamers for general cargo from the out ports is very light, and such tonnage can only be disposed of at quite a concession from rates still ruling towards the end of April. Enquiry for case oil to the Far East is light, but freights fairly well maintained, owing to demoralized freight market likely to be met there. Deal charters from the Provinces continue showing a slightly declining tendency; only freights for timber from the Gulf ports are well maintained, and the requirements of shippers quite up to the amount of tonnage offering.

Since our last report a few charters for petroleum in barrels have been made for Europe by sailers taken to arrive, almost all large-sized vessels, at rather low rates, since, apart from the above, demand for this class of tonnage remains very light. Freight for cases to the Far East hold their own, with a fair enquiry, except for Java, for which at the moment 18 cents is top, on account of the late heavy shipments and engagements in that direction. Very little has lately been done in lumber for South America, owing to the unfavorable financial situation in the Brazils, and an apparent unwillingness of owners to let their ships go to the River Plate, although there is some demand in the latter direction. Naval stores freights from the South continue dull, and, as plenty of tonnage continues offering, we can hold out no prospects of a speedy improvement. In general cargo there is but little doing in any direction, but, in view of the general scarcity of tonnage, fair rates are occasionally obtainable, and the outlook for suitable vessels continues not unfavorable.



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SALVAGE SERVICES.

The question of salvage services has undergone a decided change during the last quarter of a century, and a more equitable and common sense view of the subject now obtains a prominent place in all admiralty decisions, and other courts having jurisdiction to settle marine cases.

The decisions formerly rendered, in nearly all cases, allowed the salvors usually about one-third of the gross value of the property saved. The claim for salvage being predominant, the salvors were legally in a position to have and to hold until their claims were settled, and the question of marine salvage has been so regularly and clearly admitted that no trouble, legal or otherwise, was ever experienced in the settlement of these claims. When marine interests became more widely developed, and a better and clearer knowledge of the services rendered were placed in an intelligent manner before the various judges, the old custom was found to be lacking in the effect of a righteous decision, and remuneration commensurate with the services rendered was considered a more justifiable mode of administering the laws. This knowledge was not long in gaining ground before all of the marine courts, and as a consequence the present modern system was inaugurated to the benefit of trade and commerce all over the world.

The instance of a derelict vessel prematurely abandoned near the coast-line might be cited as showing the advisability of the new departure in salvage claims; in this case the salvors underwent little or no risk either to life or property and the vessel was taken safely into an adjacent port without incurring any great risk or expense to the salvors, yet such was the nature of the old time claims that the vessel, after being libelled, was sold to satisfy the claims of the salvors, and both the underwriters and the owners might be said to have suffered a serious loss in the ultimate rendering of the judgment based on the old time procedure and claims.

In most of the recent decisions the salvors are only awarded a sum sufficient to remunerate them for the services rendered, or in other words, ordinary services are paid for as such, and if there is extraordinary and imminent risks proved during the rendition of these services, the claims are met and settled generously. Under these laws righteous and equitable salvage services will always be obtainable, and where there is no agreement made between the salvors and the principals of the property interested the courts will decide all claims in a matter of fact, business-like and professional way. They

would also be well advised if in the new system judges were moved to consider that individual skill and exertion ought to be more distinctly acknowledged when the detailed awards were made to the parties claiming salvage, so that it could be said, as the marine puts it, "that the bullets fly thickest where the most of the prize money goes," yet in no case is it correct to award compensation collectively when a result has been obtained individually, and the same rule holds good reversed. Certainly we believe that a generous policy ought to be maintained, and that adequate remuneration ought in all cases to be tendered those who risk life and property in any emergency, whether their ultimate object may be to alleviate the sufferings of humanity, or to increase their resources financially. It is always better to err on the side of liberality than parsimony, or an ill advised economy, in cases where life and property has been saved at any risk to the salvors, and in this connection we would suggest that the several large lake underwriting firms take a closer interest in awarding recompense for meritorious services in connection with the rendering of valuable assistance to floating property or where the skill and good judgment of those in charge prevented a greater loss than otherwise would have occurred. Of course it is the bounden duty of the master, officers and crew to stand by their vessel to the last plank or plates hold together, and nothing can be more execrable than a premature abandonment; yet, it can but be admitted that there are degrees of this standing-by feature, as there are also in exercising judgment, discretion and an interest in all that concerns the welfare of those most interested.

SHAPING COURSES--DETERMINING DISTANCES.

And now comes along the same old story of stranding valuable steamers through a misconception of the distances run and the course the vessels were making over the ground as opposed to that indicated by compass.

That corrections are in every instance to be applied to the compass on nearly all courses, it by no means follows that the instrument is a poor working or badly adjusted guide. It has become too much the fashion to speak of these proper corrections as compass errors. Rather would the instrument be a faulty one if it indicated anything contrary to what is required by taking these corrections into consideration, so that it may be said, corrections, and not errors is the proper term to apply in all such cases.

The pertinency of the foregoing may be admitted when we find within twenty-four hours of the present writing, two valuable, loaded steamers bungling into the land in complete ignorance of their positions, one on Lake Erie, the other on Lake Michigan, and within a few hours of each other. One master thought that he was opposite a point several miles off, the other, after being thirteen miles out of his course, sighted a light and then stranded five miles from his supposed position, though from the extent of his first error the second one ought to have shown a still greater one.

It is a matter of course that vessels will strand even in fine weather. The circumstance occurs every day at some point or another, and will continue to take place on lakes, coasts, rivers, or wherever they can find bottom. At the same time every precaution known to the ordinary practice of seamen should be observed and where glaring errors take place the causes leading up to such ought to be inquired into, if only for the better guidance and safety of others and future conditions.

We do not wish to prejudge either of these apparently flagrant cases of stranding, further than to point out and emphasize the need of knowing how a vessel is going or coming over the ground and this in relation to actual course and distance.

Relative to the twenty-foot channel, it was questioned a few years ago if the cut through Lake St. Clair could be maintained, as the wash from the sides would be certain to sift into the bed of the cut or dredged portion. In the current issue of the Record Colonel G. J. Lydecker, corps of engineers, U. S. Army, in charge of the engineering work for that district, points out this very feature, and, while stating that the dredged cut has a uniform width of 800 feet, the practice of steamers running at high speed threatens the durability of the improved waterway. This is certainly the case and is in a measure similar to the

action of running water on the unprotected banks of a canal, only, that the process of silting in is going on from the bottom or under water, instead of from the surface as canal banks would show. It is asked that vessels will go at a moderate speed through the dredged cut and of course it would be to the interests of owners to issue such orders, but, and the but settles the question, will they? Masters have been accustomed to make all possible time through Lake St. Clair, and are likely to continue doing so, nor if they kept well in the center of the channel would the submarine wash disturb the silt at the sides very much. It is only when vessels get close in to either side, working their wheels so as to disturb the soft bottom, that the dredged portion is likely to silt up in short order. With a channel 800 feet wide and fairly good steering, the under water action of the propeller should be almost neutralized before reaching three or four hundred feet on either side, so that the first caution might be to request that a fair midchannel course be maintained while traversing the dredged cut on Lake St. Clair, as, if going at a slow speed and sailing close up to the edge of the cut quite as much harm, if not more, would be effected than by moving at full speed and keeping well to the center of the channel.

In obtaining the log of the Mayflower, Ex-Ambassador Bayard proves that he obtained almost more than the good-will of the Britishers, who no doubt were loath to part with the historical old record.

It is a sad commentary on the state of the American merchant marine, or rather the lack of it, when the Navy Department has had so much trouble in securing ships to carry the contributions of grain from this country to India that it now has under consideration the propriety of appealing to Congress to amend the resolution under which it is proceeding. That resolution requires the grain to be carried in an American vessel. It happens that there are very few American steamers outside of the regular lines, and the department is unable to comply with the terms of the act unless it turns to a sailing ship. Such a ship could not reach Bombay in much less than three and a half months, by which time the famine sufferers for whom the relief is intended might be expected to be either starved to death or in possession of new crops of rice. Why not do the thing properly and send a suitable naval vessel as was done during the Irish famine times.

It appears, or rather it is well known in maritime circles, that the St. Louis and St. Paul recently received repairs on the other side. It is further known that a Clyde firm undertook these repairs and sent gangs of men from Scotland to Southampton to carry out the work. The Glasgow News is jubilant to the tune of about a column over the circumstance, quoting one of the workmen's views to the effect that only Clyde builders could put such large ships together properly. We believe that if this question was fairly opened up it would prove a simple business proposition, or in other words a matter of dollars and cents with the owners of American lines, and that the canny Scot had underbid his competitors to such an extent as to secure the contract, figures on which were no doubt lower than if the work had been done in Philadelphia. It is simply nonsense for Clyde builders or workmen to assert they only are first-class shipbuilders. For that matter, their best men have been coming to the States to make a living for the past handful of years, and I could now reach at least two good professional Clyde men in as many minutes, men who have made and are making their mark, too, in marine and shipbuilding circles.

West Bay City, Mich., is certainly taking a great lead in building lake tonnage. We note from the Treasury Department report just received that for the week ending May 8, no less than 7,561 gross tons of sail tonnage were granted official numbers by the Bureau of Navigation. One of these vessels measured 3,423 tons and two others a mean of 2,058 tons, the former being a large steel schooner and the two latter modern built wooden schooners.

There seems to have been a larger number of damage cases during the past week or two than ever before. What with the "Soo" lock, a steamer running into her own tow, heavy grounding damage, harbor damages, three in one day at Chicago, and strandings, all more or less seri-

ous, the underwriters must be dancing to a fairly lively tune. There is one feature about this, though, which we might remark, as it calls to mind the interminable discussion of "who pays the tax" there can be no doubt in the foregoing instances that the foreigner does. "So we may let the galled jade wince."

ENTERING TORONTO HARBOR.

Owners and captains of sailing vessels are not at all satisfied with the condition of the eastern gap at Toronto, as the depth of water is not sufficient to permit of vessels sailing in, and they are obliged to lie off and wait to be towed in. Last week the schooner Arginta, when to the west of the red buoy which marks shoal water, grounded when only drawing 11 feet, 4 inches, which is ten inches less than the usual draught of schooners. The extremely shallow water renders it impossible to keep a right course. Application has been made to the department of marine and fisheries for a government dredge, but so far no notice has been taken of the request. Another complaint they have is the want of a range light on the eastern pier. They claim that it is at times impossible to distinguish the red light at the Queen's wharf from that at the eastern gap. Last year, in rough weather, the schooners Emory and Dundee grounded for want of a range light.

HYDROGRAPHIC OFFICE PUBLICATIONS.

The Hydrographic Office, U. S. N., have just issued a very handsome book, 10 inches by 6, showing sixteen plates of the various cloud forms for the guidance of the observers in the classification of clouds. The late hydrographer, Capt. C. D. Sigsbee, U. S. N., states in the preface of the work as follows:

The inadequacy of the old classification of clouds, either for identification or record, and the increasing attention given to clouds as signs for forecasting the weather, have led to the adoption of the present classification by the Hydrographic Office. The classification nomenclature, and descriptive text are derived from the International Cloud Atlas, Paris, 1896, but the plates are from original paintings made for the Hydrographic Office. The standard classification includes ten cloud types, which are shown on the first ten plates. Certain modifications of these types are shown on the remaining six plates. Rules for observing and recording are left for separate publications, as future development may suggest.

Each plate embraces the horizon and enough extension of view to show cloud perspective. The question of the adoption of a new classification, the collection of photographs and printed exemplars, the investigation of authorities and the form of publication, have been under the special charge of the Hydrographer. The original paintings are by Mr. Rudolf Cronau, who brings to the work an admirable spirit and an entirely satisfactory comprehension of the scientific and technical sides of the question. The paintings are derived from a large number of photographs provided by the Hydrographer, printed exemplars, the International Cloud Atlas, and from the artist's personal observation and knowledge of clouds. Mr. Cronau has had the advice of Mr. Louis Prang, the eminent lithographer, in respect to the quality of the pictures for reproduction. The lithographing is by L. Prang & Co., Boston.

The thanks of the Hydrographic Office are due to Mr. A. Lawrence Rotch, Director of the Blue Hill Meteorological Observatory and member of the International Cloud Committee, who, during the whole consideration of the subject by the Hydrographer, covering a period of three years, has given encouragement and advice; and to Mr. H. H. Clayton, of the Blue Hill Meteorological Observatory, who has criticised the paintings as they were produced, thereby enabling corrections to be made by the artist. The thanks of the Marine Record are due to the present Hydrographer, Commander J. E. Craig, U. S. N., for a copy of this work; also a very handsome chart or sheet of the colored plates.

We are indebted to Mr. Geo. F. Stone, secretary of the Board of Trade of Chicago, for a copy of the 39th annual report of the trade and commerce of Chicago for the year ending Dec. 31, 1896, which was compiled by Mr. Stone for the Board of Trade. It is a large volume of nearly 400 pages. Its special feature is the exhaustive review of the year's business by Secretary Stone.

RECOGNITION AT LAST.

Daniel E. Lynn's handsome gold medal, awarded by congress as a recognition of his heroism on the occasion of the wreck of the schooner William Shupe, was forwarded to him from Washington this week at his home in Port Huron. The medal was secured after a hard fight, made by Senator McMillan, who was obliged to meet the objections of the treasury department officials that a bad precedent would be established through the striking of a special medal.

The trophy Lynn will receive is unusually heavy and handsome. On the obverse side of the medal is the inscription, "United States of America, joint resolution of congress, March 2, 1897," while on the reverse are engraved the words: "In testimony of heroic deeds in saving life from the perils of the sea." Within a wreath the name "Daniel E. Lynn" is handsomely engraved.

OHIO FIRE AND MARINE INSURANCE.

Under the statutes of the State of Ohio foreign fire and marine insurance companies engaging in business in that Commonwealth, in addition to being taxed upon their gross receipts for premiums, are required to deposit \$100,000 with the State Treasurer. Several of the most prominent English companies have complied with these requirements, but many others are evading the law and doing business surreptitiously through Eastern agencies which have subagents at Cleveland and other Ohio ports. These "underground" companies have the present season made rates which the legitimate and regular companies cannot meet, and consequently are securing most of the business. It is understood that the Insurance Commissioner of the State has taken cognizance of the status of affairs, and is about to enter upon an investigation which promises to lead to the imposition of heavy penalties upon the transgressors.

COAL HANDLING AT MILWAUKEE.

The B. Uhrig Fuel Company is sustaining its reputation for rapid work at the Canal Street yard, Milwaukee. The steamer S. R. Kirby and her consort George E. Hartnell began discharging their coal cargoes, aggregating 7,776 tons, at 8 a. m. and were ready to leave at 8 o'clock p. m. The time occupied in transferring these cargoes to the stock piles was thus about 24 hours.

NAVAL ECCENTRICITIES IN DAYS OF YORE.

Remarkable personalities are comparatively rare in the navy of our time. There is no place for the superb eccentricities which almost inevitably distinguished equally the great and the little man who trod the man-of-war's decks in the days of yore. In society there may be a certain air about the naval officer which marks him in the eyes of those who know. But such an air is a subtle surrounding, impossible to describe in detail, so that even on the stage the naval officer is a very fine fellow merely, without any foibles for the dramatist to take hold of. How impossible is it now to imagine the admiral in command of the Mediterranean fleet (say) leading his division into action while munching an apple, and alternating bites and puns, which was Collingwood's individuality at the battle of Trafalgar? Or who will conceive that the captain of the "Royal Sovereign" pacing the bridge of the "Majestic" beside the admiral within full but distant view of the enemy, and hearing him speak of his determination to fight at all hazards should give him a hearty slap on the back and exclaim, "That's right, Lord Walter, and a d—n good licking we'll give them!"—which was Capt. Hallowell's individuality at the battle of St. Vincent. Or who shall believe that the greatest man of the navy today could sit himself down to write a solemn dispatch to the admiralty, ascribing the bad state of health in his fleet to fresh beef and vegetables and too great relaxation, and abstention from salt provisions!—which was the individuality of the great St. Vincent. Or, to drop at once to small things—is there now a living midshipman who has had to awake the lieutenant in charge of the watch at sea, and get him to sit up in order to award a proper punishment to the look-out-man caught in the same breach of the articles of war? That was an individuality within my own experience.—From "The Evolution of the Naval Officer," by Admiral P. H. Colomb, R. N., in "North American Review" for May.

LAKE FREIGHTS.

While there is no sense in crying wolf when there is no wolf, it is just as stupid to say the freight market is improving, or on the upward tendency when it is no better than it was last week. There are plenty of cargoes and large ones, too; that seems to be the worst of it, as these four and five, yes fifty-five hundred-ton licks bar out a good many medium-sized vessels from catching a charter.

There is a present slight improvement, however, in coal rates, for after going back five cents to Lake Michigan, the old figure of 25 cents has been restored, though the head of the lakes still holds at 20 cents. Vessels fitted for the lumber trade chiefly out of Georgian Bay are also finding something to do and this gives a show to a class of tonnage that needs every cent that they can earn for their owners, as opposed to the large corporations who could stand a whole season's siege of necessary.

The largest transaction in iron ore this week was the placing of a block of 150,000 tons from the head of Lake Superior to Lake Erie ports, up to September 1, at 60 cents and the balance to be carried up to November 1, at 70 cents. This makes Lake Superior charters amount to about half a million tons already fixed for the season. The wild rate from Escanaba is still at 40 cents, with just as light shipments as there is from Lake Superior, though the South Chicago charters are fixed for the season.

The Chicago grain trade is holding fairly steady at 1½ cents on corn to Lake Erie and a fair amount of business has been done during the week. It was also reported that 1½ cents was paid on some lots of wheat, and 1½ cents was certainly paid for one cargo, an advance of ½ cent over former charters.

The decline in ore freight rates is displayed in the figures which follow, the season contract rate from Marquette being used: 1882, \$1.75; 1883, \$1.20; 1884, \$1.35; 1885, \$1.05; 1886, \$1.20; 1887, \$1.63; 1888, \$1.15; 1889, \$1.10; 1890, \$1.25; 1891, 90 cents; 1892, \$1.15; 1893, \$1; 1894, 80 cents; 1895, 75 cents; 1896, 95 cents; 1897, 65 cents. At one time, 1887, the "wild" rate was as high as \$1.87, while in 1880 the freight rate averaged \$2.20, a period of prosperity for vesselmen. In the seasons 1894, 1895, 1896 low "wild" freight rates prevailed, the average rates having been 60, 92 and 66 cents respectively. The average "wild" freight rate from Duluth was \$2.23 in 1887. The contract rate shows a decline from \$2 in 1887 to 70 cents this year.

POSTPONEMENT OF SALE.

From an advertisement appearing on page 11 of the current issue of the Marine Record, the U. S. Revenue Cutter Johnson, is announced for sale on May 31st. Under authority of Hon. O. L. Spalding, Acting Secretary of the Treasury, the Record has been requested to state that the sale has been postponed for one day, or from May 31st, to June 1st, at the same hour, viz: noon.

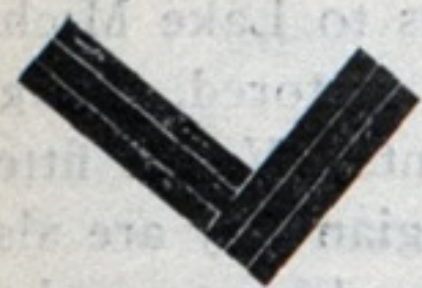
HUMORS OF HYDROGRAPHY.

As in every other feature of nautical life, hydrography has both its interesting and its humorous side. Many years ago, the Graham shoal, lying between Malta and Sicily, gradually rose and rose until it reached a height of 150 feet above the level of the sea. Of course, a party was very soon despatched to annex, and hoist the union jack on the newly found islet. Years afterwards it was reported to have disappeared, and when her Majesty's ship Newport surveyed the spot in 1868, a mass of scoriaceous ashes was found, two and a half fathoms under water. In 1866, while searching for the Helen shoal in the China sea, breakers were reported from the masthead of her Majesty's ship Dove, which immediately steamed towards the spot, and every one on board the vessel thought a shoal existed there. On a nearer approach, however, the supposed breakers were seen to be due to a fight between a whale and a thrasher. Later on her Majesty's ship Challenger, in the course of her cruise, happened to be in the neighborhood of the Fiji Islands, when a peculiar play of the moonlight on the water was mistaken for an uncharted shoal. An unfamiliar "rip" was responsible for a similar mistake in the China sea in 1889. Again, towards the end of 1890, some mischievous fish caused a lot of trouble to a surveying expedition, when her Majesty's ship Alert, in December of that year, was engaged in ascertaining the exact position of Le Rhin shoal, in the Pacific. Breakers were sighted, and upon making for the supposed danger, hundreds of large fish were discovered jumping, and throwing the water high up in the air, and no bottom with 300 fathoms of line could be obtained.

H. C. BURRELL,

Marine Reporter.

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at all hours, night
or day.Signal: One long
two short.Our boats are
white. We'll treat
you white and deal
with you

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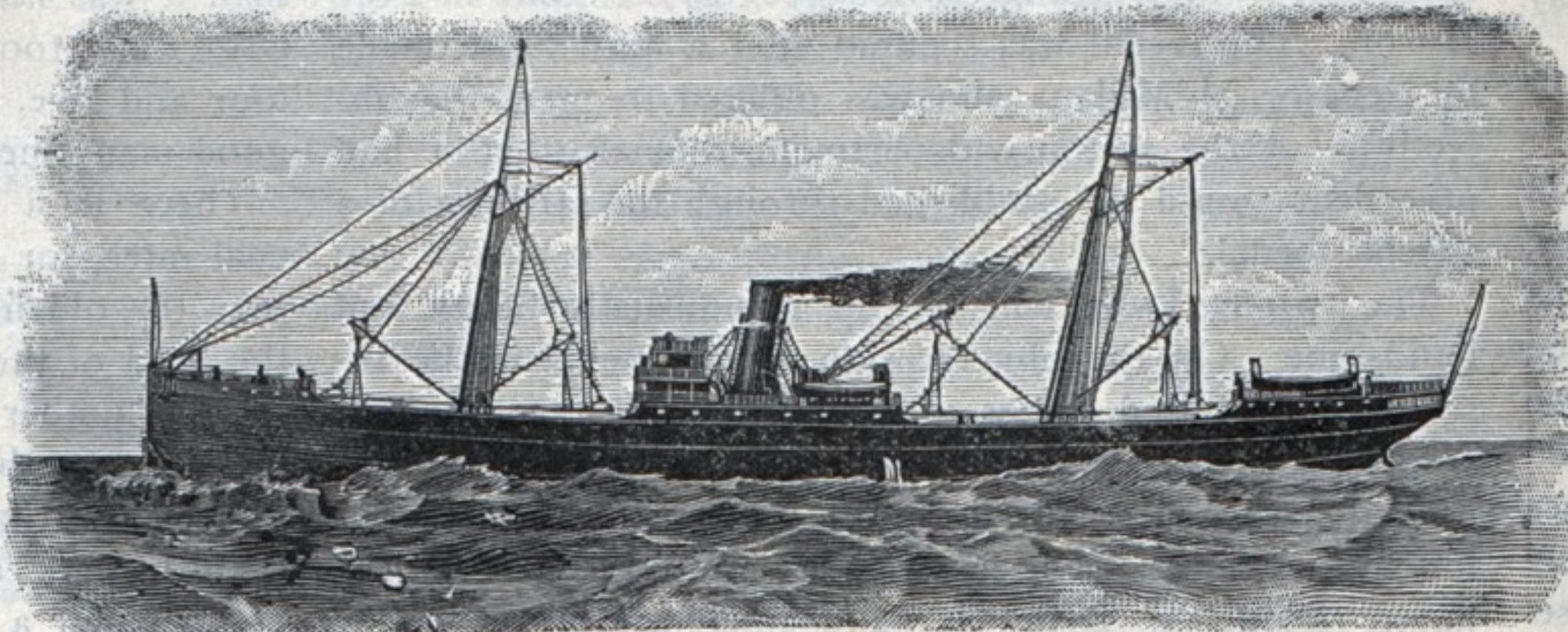
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FOOT WOODWARD AVENUE,
DETROIT, MICH.**F. W. WHEELER & COMPANY,**

BUILDERS OF ALL KINDS OF

**Iron, Steel, and
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WATER-PROOF
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covers, is stronger, lighter, and more
durable than any water-proof goods
yet produced. It is made of a twisted
thread of pure flax, which renders it
very strong. It will not crack like
cotton goods, which is a great advan-
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PEERLESS
SPIRAL PISTON
VALVE ROD PACKING**THE PEERLESS****Spiral Piston and Valve Rod Packing.**Once Tried, Always Used.
Will hold 400 lbs. Steam.

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DETROIT, MICH.193-195 Bank St.,
CLEVELAND, O.202-210 S. Water St.
CHICAGO, ILL.**ONE PHASE OF SEA LIFE.**

A most heartrending story is sent out this week in a special from Victoria, B. C., as follows: Ten days ago, about 100 miles west from the Queen Charlotte Islands, the lookout on the British sealing schooner Arietis sighted a drifting derelict floating very deep in the water and dismantled. Hoping they might yet be in time to rescue some of her crew, Captain Martin altered his course and bore down on the wreck. One of the crew from aloft shouted encouragingly: "It looks as though we were in time. I can see a man standing aft."

The abandoned craft proved to be the schooner General Siglin, which left San Francisco for Wood Island, Alaska, on March 13, with a crew of six men and five passengers: Wm. C. Greenfield, general manager of North American Commercial Co., with his wife and family. As the boat from the Arietis boarded the schooner she was lying so low in the water that the men stepped from the small boat to the roof of the derelict's cabin. The picture was one of utter desolation, and with a shudder, Capt. Martin saw a dark mass huddled at the stern, but death had long released the body from its suffering: That he had made a gallant fight was apparent, and as sailors from the British schooner approached the rigid corpse, they found it was firmly lashed to the starboard stern davit, the poor fellow having plainly realized that when his strength deserted him he would otherwise be washed overboard. The papers on the body showed that the man was the mate of the Siglin, Henry Saunders, 40 years of age, a master mariner of St. John, a member of the Masonic order, attached to one of Edinburg lodges. They also indicated that he had a wife and children somewhere in the East. The body was removed to the Arietis, and then consigned to the deep with the simple but impressive ceremonies of burial at sea.

From the limited opportunity of inspecting the abandoned craft, Captain Martin came to the conclusion that she must have been dismantled fully a month before he fell

in with her. That the crew must have either been washed overboard, or have taken to the boats and been cast away; or indeed, their bodies may at the time have been floating in the submerged cabin of the drifting hull.

VISIBLE SUPPLY OF GRAIN

As compiled for The Marine Record by George F. Stone, Secretary Chicago Board of Trade.

CITIES WHERE STORED.	WHEAT, Bushels.	CORN, Bushels.	OATS, Bushels.	RYE, Bushels.	BARLEY, Bushels.
Albany.....		30,000	50,000		
Baltimore.....	242,000	1,091,000	66,000	32,000	
Boston.....	269,000	844,000	153,000	1,000	10,000
Buffalo.....	611,000	204,000	519,000	140,000	473,000
" afloat.....					
Chicago.....	7,038,000	6,077,000	3,533,000	854,000	57,000
" afloat.....					
Cincinnati.....	1,000	3,000	10,000	1,000	4,000
Detroit.....	104,000	2,000	5,000	28,000	
" afloat.....					
Duluth and Superior	4,494,000	23,000	841,000	358,000	252,000
" afloat.....					
Indianapolis.....	35,000	95,000			
Kansas City.....	175,000	157,000	166,000	5,000	
Milwaukee.....	185,000	3,000	1,000	349,000	61,000
" afloat.....					
Minneapolis.....	12,304,000	72,000	345,000	32,000	1,000
Montreal.....	407,000	16,000	664,000	55,000	35,000
New York.....	710,000	2,696,000	1,134,000	353,000	253,000
" afloat.....	37,000	50,000			22,000
Oswego.....		31,000	2,000		45,000
Peoria.....	2,000	16,000	18,000	2,000	
Philadelphia.....	115,000	393,000	30,000		
St. Louis.....	258,000	213,000	13,000	13,000	
" afloat.....					
Toledo.....	952,000	251,000	19,000	74,000	
" afloat.....					
Toronto.....	120,000		54,000		33,000
On Canal.....	30,000	146,000	135,000	246,000	140,000
On Lakes.....	1,284,000	1,441,000	2,174,000	548,000	81,000
On Mississippi.....	4,000	14,000	44,000		
Grand Total.....	29,737,000	13,868,000	9,976,000	3,091,000	1,467,000
Corresponding Date					
1896.....	53,146,000	9,153,000	7,890,000	1,550,000	808,000

George E. Tener, late of the Rosena Furnace, New Castle, has been appointed general agent of the Pittsburg, Bessemer & Lake Erie Railway, with headquarters at Conneaut, O.

LAUNCHES AT THE DAVIDSON SHIPYARD.

On Saturday last, a triple launch took place from the Davidson ship-yard, West Bay City.

The wooden three-masted schooner, Crete, principal dimensions 300 feet long, 45 feet beam, and 24 feet molded depth, made one of the most perfect launches of the season. The Crete has double steel keelsons, double steel arches, steel cord, and is diagonally strapped. She is fitted out with all the latest improvements, including steam windlass, capstans, pumps, deck winches, etc. A large donkey boiler, which is located forward, was built by Wickes Bros., of Saginaw.

The cabins are finished in hard wood and everything about her equipment and outfit is first-class. Her capacity is 130,000 bushels of wheat on a Sault canal draft, and she has nine hatchways. The Crete is classed A 1* in the Inland Lloyd's Insurance Register, and also has the highest class in a New York classification society.

When the launch took place her sails were all bent, anchors to the hawse, and her entire outfit aboard, so that when she went into the water, she was quite ready for work, and has before this received her first cargo on board at a Lake Superior port.

The other two launches were two large barges built to the order of Andrew P. Gray & Co., of Detroit, for service in the ice trade between Lake St. Clair and Detroit.

The schooner Athens, which is a sister ship to the Crete, is now nearly completed, and it is expected that she will be launched in about a week.

LIVERPOOL DOCKS.

The area within the jurisdiction of the Mersey Docks and Harbor Board has increased 66 per cent. during the past thirty-five years, being 341 acres in 1861 and 531 acres in 1897, while the tonnage of vessels using the port has increased from 4,630,183 tons to 11,046,459 tons. During the same period the revenue derived by the board from goods and shipping went up from £526,632 10s. 7d. to £1,000,373 1s. 5d., or approximately \$5,001,865.

NOTES.

"Perfection in Anchors" is the title of a neat pamphlet that has just been issued by the Baldr Anchor Co., of Chester, Pa., and which contains a collection of illustrated and valuable information on the subject of anchors of all kinds.

The annual volume of the Record of American and Foreign Shipping for 1897, published by the American Shipmasters' Association, New York, is now ready for distribution. A rating in this favorite and well-known association for classing all types of vessels gives owners moderate rates of insurance and the ship a character.

The American Line steamship Paris was one of the first ocean steamers to have a length of nickel steel shafting. The shaft has a tensile strength of 90,000 pounds (40 tons), probably 25,000 pounds (11 tons) more than any British steel shaft. It has been established by tests that nickel steel has a higher elasticity than ordinary steel to the extent of 31 per cent, and that the tensile strength is 20 per cent greater.

The profits of the Hamburg and South American Steamship Co. for 1896, according to the annual statement just published, were \$705,340. In 1895 the profits were only \$470,120. These sums are the profits on voyages only. It is to be noticed that these results were obtained in spite of financial depression in Brazil and of the failure of the wheat crop in the Argentine Republic, and in spite of extra expenses incurred by the company on a rise in wages granted to the dock laborers in Hamburg.

It is getting to be quite the fashion for shipmasters and pilots to ride a wheel these days, although it does seem a lubberly, unsailorlike thing to go straddling along on such a delicate-looking hurdy-gurdy. Sailors usually like to feel their pins under them and get 'em down flat footed, too, as opposed to mincing along like a French dancing master. However, the bike has come to stay and he who is without one may be asked at any time "where he is at." One thing is certain, he is neither on it or in it.

PROPOSALS.

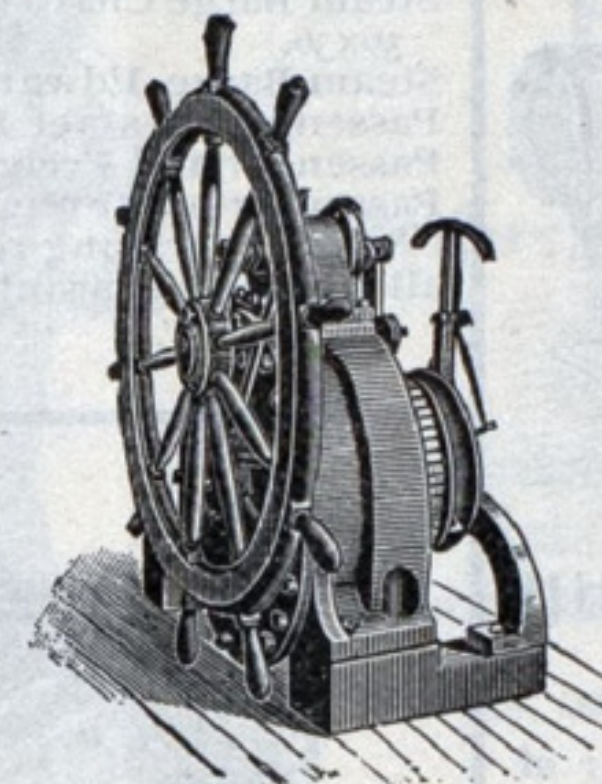
U. S. Engineer Office, Telephone Building, Detroit, Mich., May 10, 1897: Sealed proposals for improving Detroit River, Mich., by removal of boulders, bed-rock, or other material from Ballard's Reef Channel, will be received here until 12 o'clock noon (standard time), June 1, 1897, and then publicly opened. Information furnished on application. G. J. Lydecker, Lt. Col. Engrs. 19-21

Treasury Department, Washington, D. C., May 14, 1897.—Will be sold at public auction to the highest and best bidder for cash, at 12 o'clock noon on Monday, May 31st, 1897, at the shipyard of the Globe Iron Works, Cleveland, O., the Revenue Steamer "Johnson." The Johnson is a side-wheel steamer of 499 gross tons, fore-and-aft rig; white oak frame; extreme length, 175 feet; beam molded 28 feet, 9 inches, draft 7 feet, 5 inches forward, 8 feet aft; has a vertical beam-engine, one flue and return tubular boiler, built in 1885; and is supplied with steam pump, awnings, anchors and chains, 2 boats, etc. The vessel can be seen at the place named, and will be open for inspection until the day of sale. A deposit of \$200.00 will be required of the successful bidder at time of sale. Will be sold separately at the same time and place certain articles of outfit. The Government reserves the right to reject any or all bids. O. L. SPALDING, Acting Secretary.

Treasury Department, Office of General Superintendent U. S. Life Saving Service, Washington, D. C., May 7, 1897. Sealed proposals will be received at this office until 2 o'clock p. m., of Thursday, the 3d day of June, 1897, for furnishing supplies required for use of the Life Saving Service for the fiscal year ending June 30, 1898; the supplies to be delivered at such points in

New York City, Grand Haven, Mich., and San Francisco, Cal., as may be required, and in the quantities named in the specifications. The supplies needed consist of Beds and Bedding; Blocks and Sheaves; Cordage; Crockery; Furniture; Hardware; Lamps, Lanterns, etc.; Lumber; Medicines, etc.; Paints, Oils, etc.; Ship Chandlery; Stoves, etc.; Tools, and miscellaneous articles; all of which are enumerated in the specifications attached to the form of bid, etc., which may be obtained upon application to this office, or to the Inspector of Life Saving Stations, 24 State Street, New York City; Superintendent, Eleventh Life Saving District, Grand Haven, Mich.; and Superintendent, Twelfth Life Saving District, New Appraisers' Stores, San Francisco, Cal. Envelopes containing proposals should be addressed to the "General Superintendent, U. S. Life Saving Service, Washington, D. C.," and marked on the outside "Proposal for Annual Supplies." The right is reserved to reject any or all bids, and to waive defects, if deemed for the interests of the Government. S. I. Kimball, General Superintendent. 19-20

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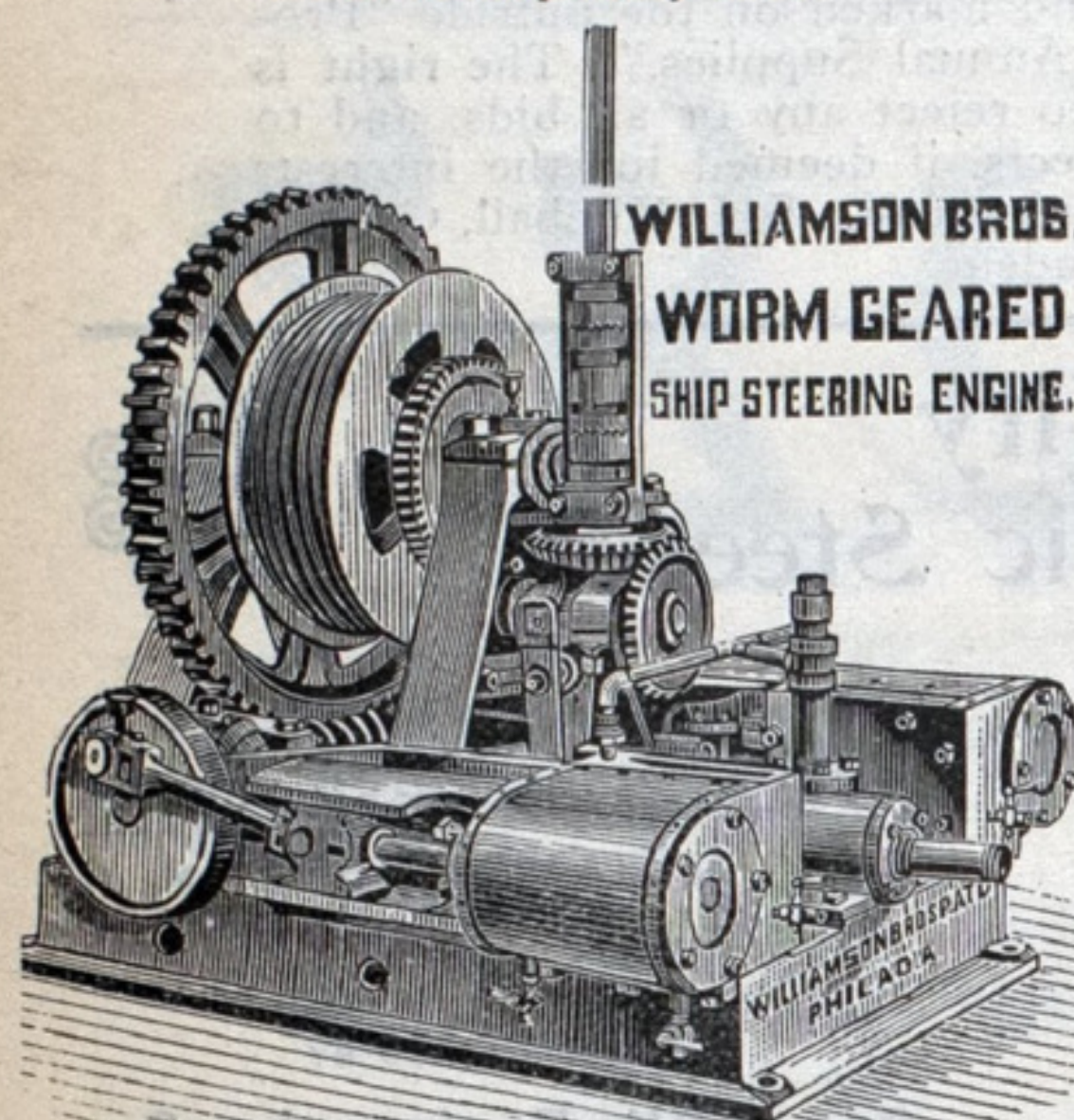
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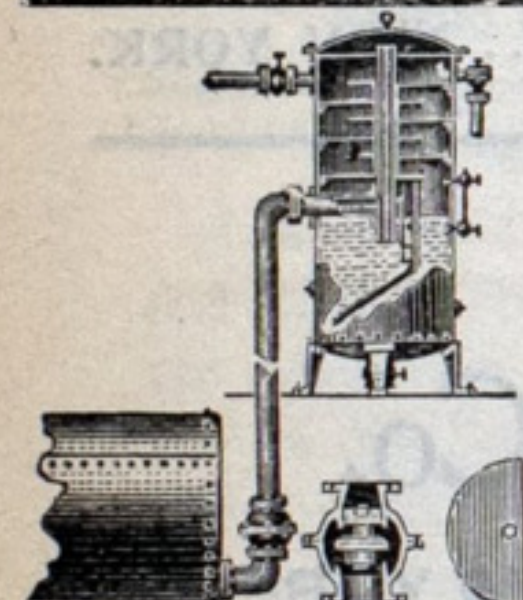


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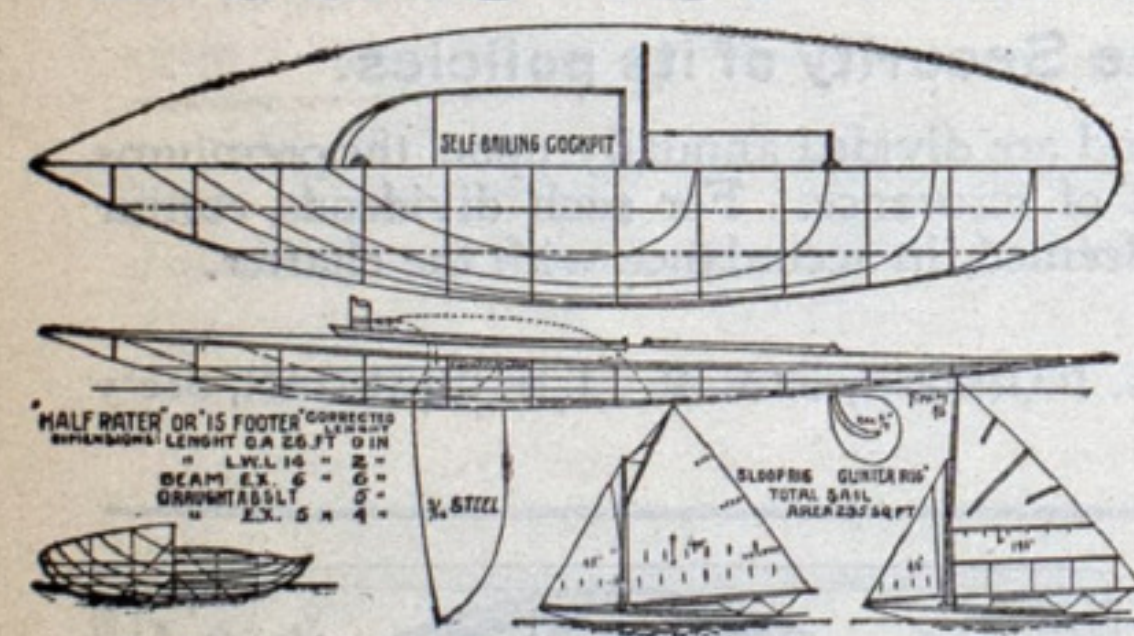
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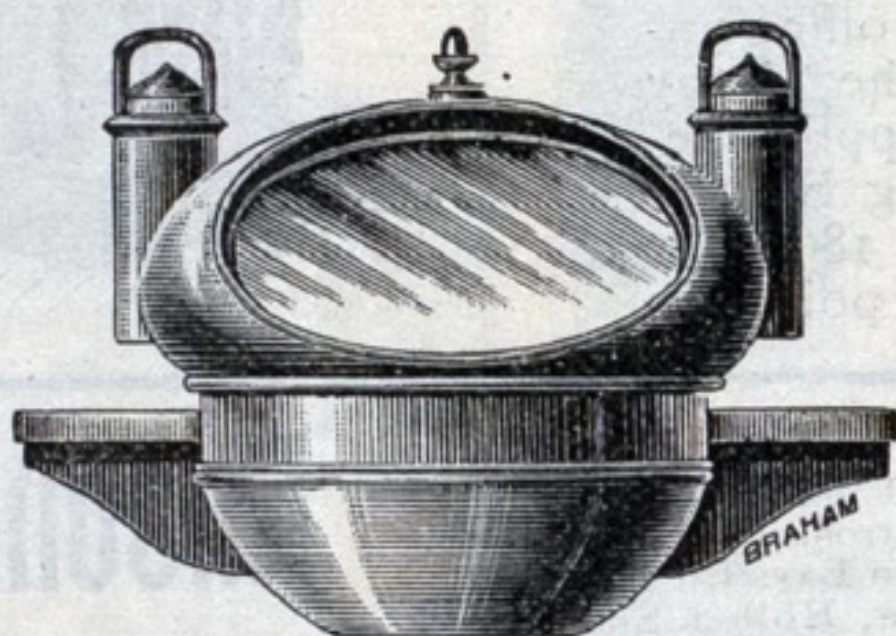
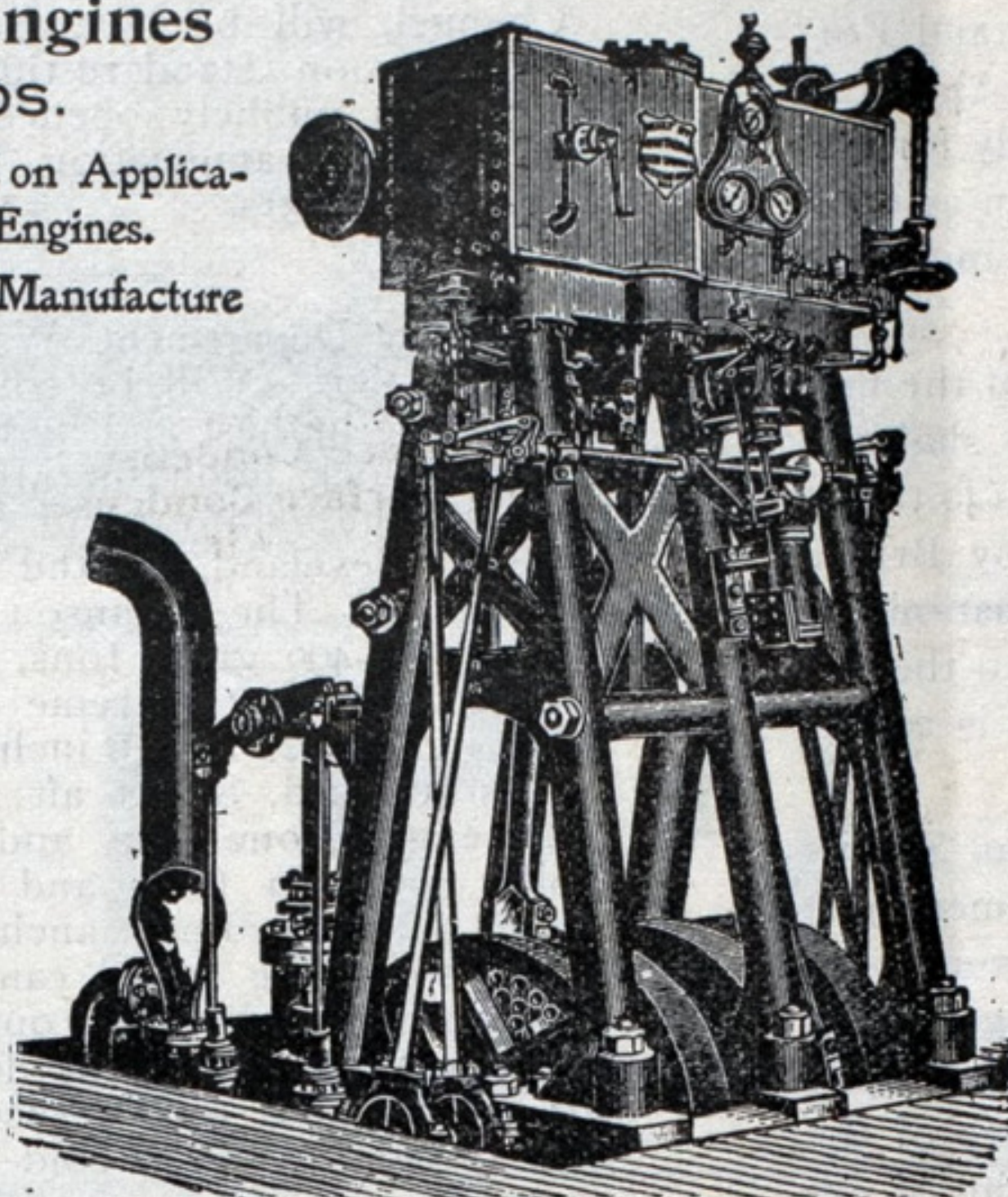
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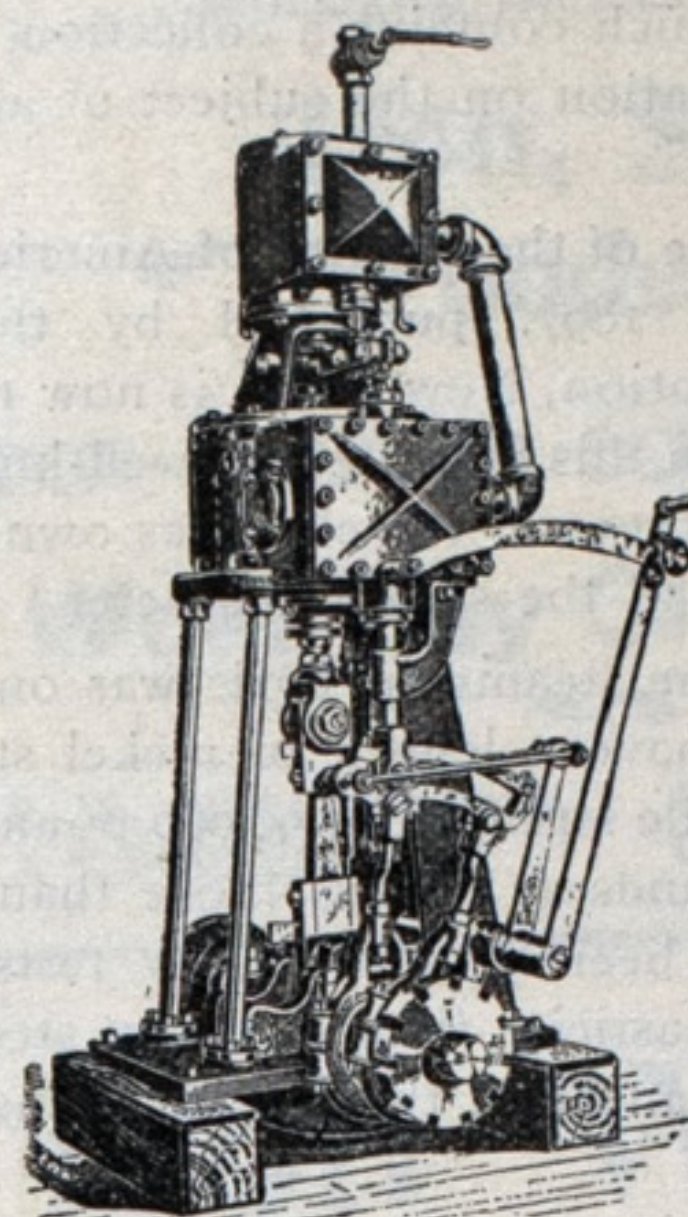
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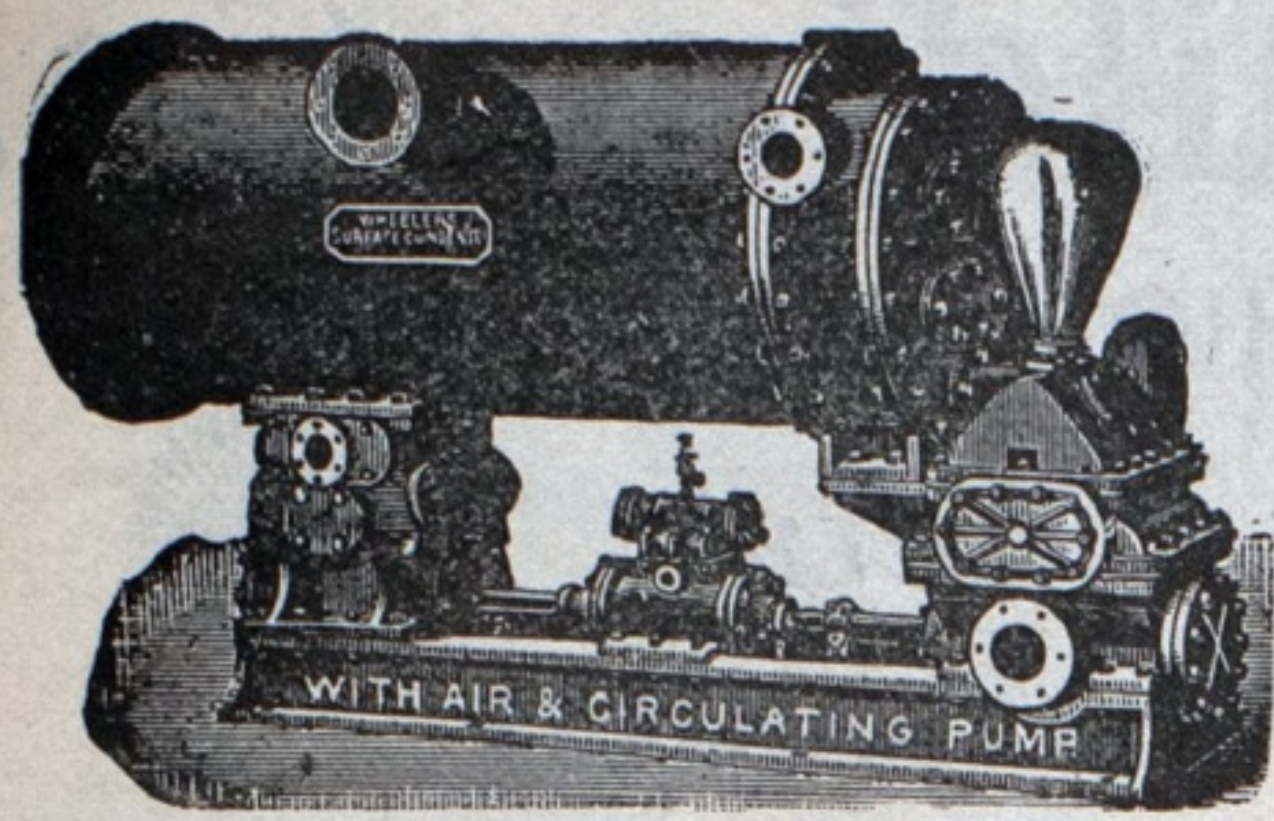
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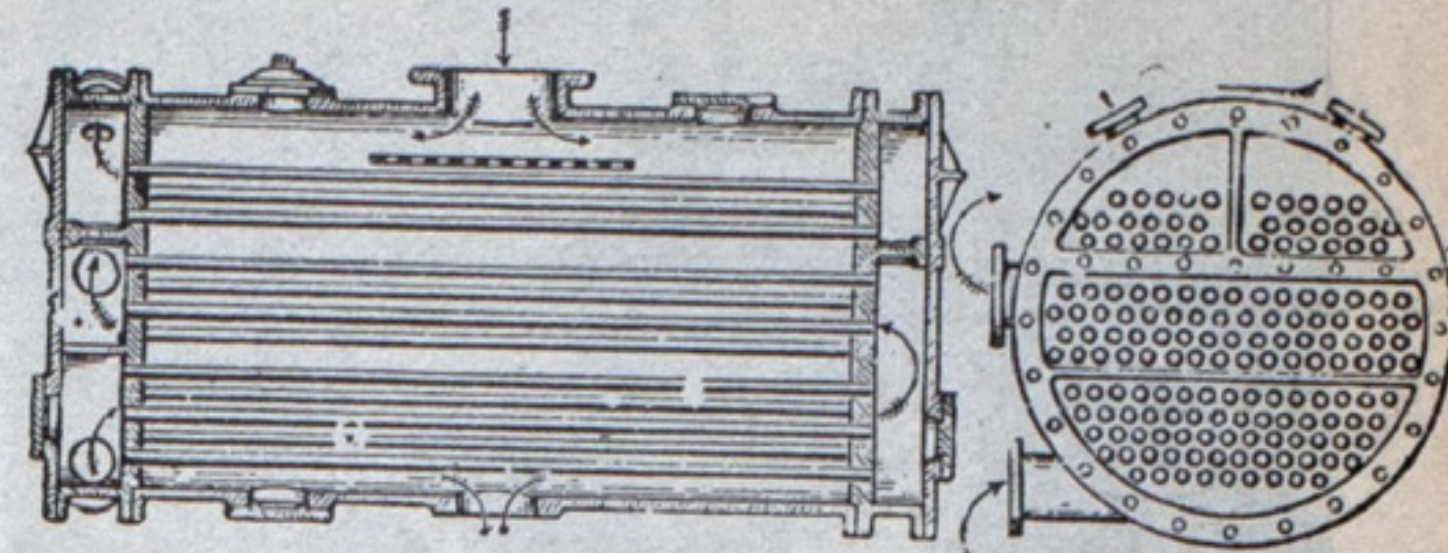
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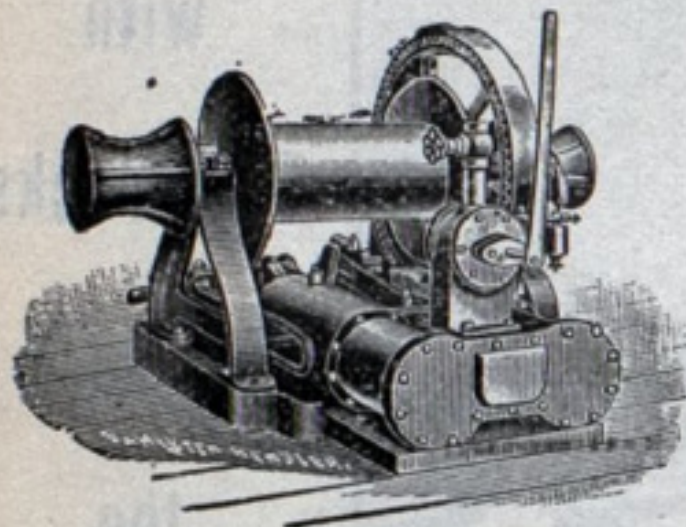
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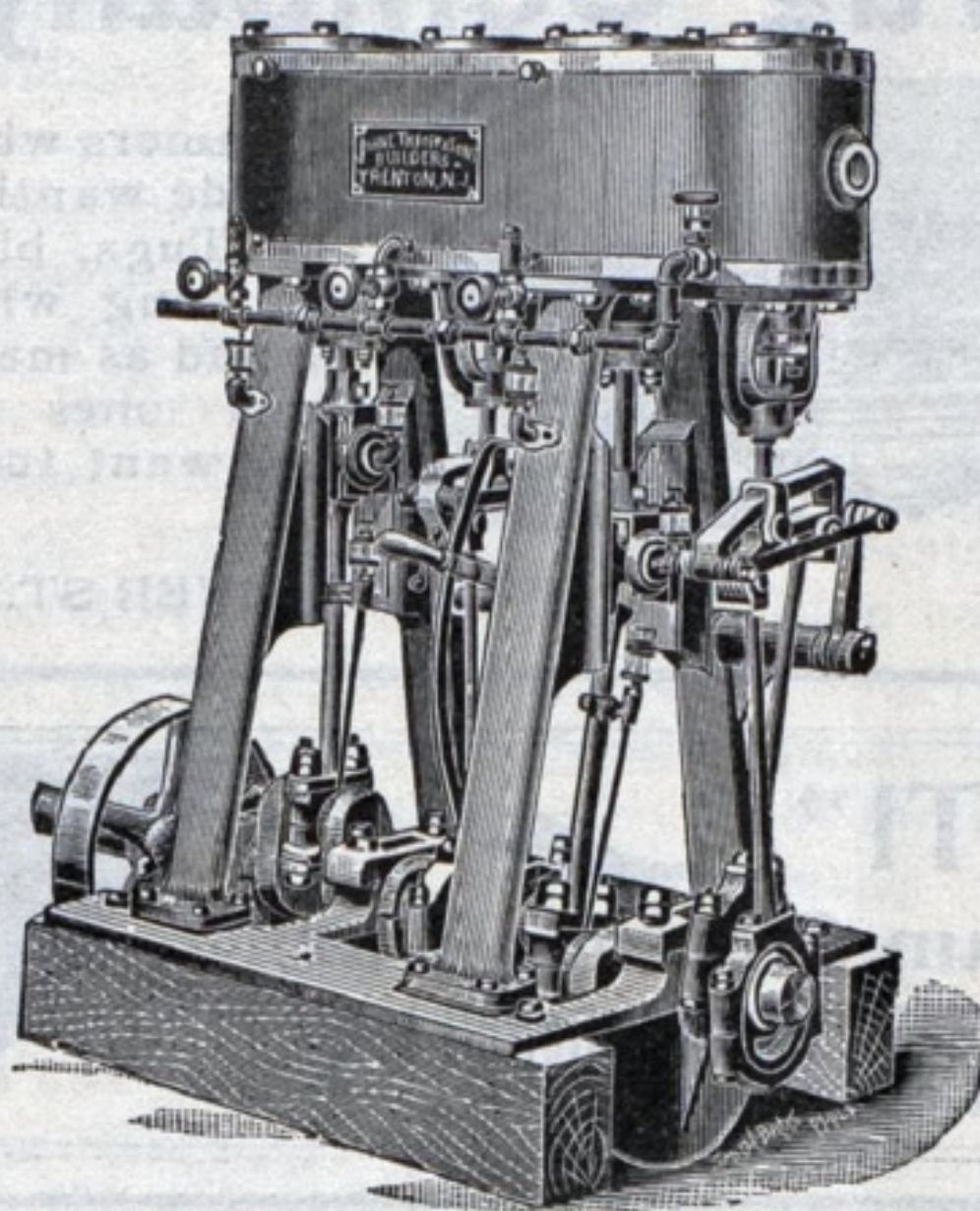
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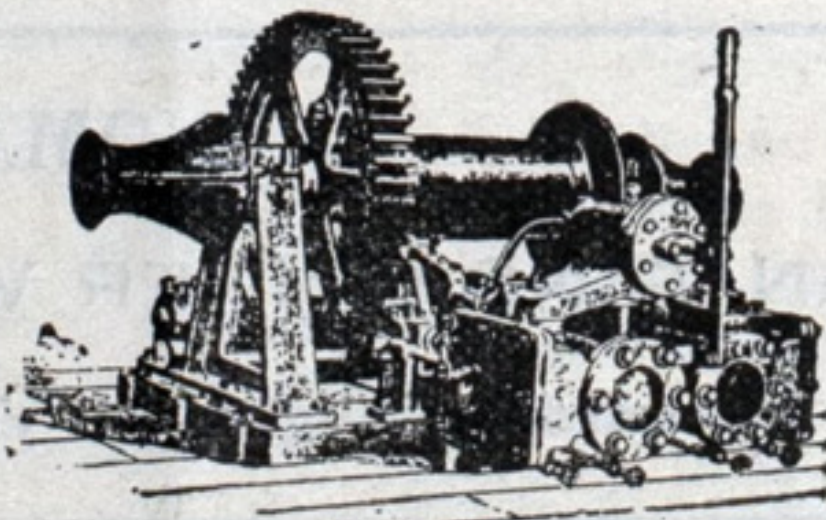
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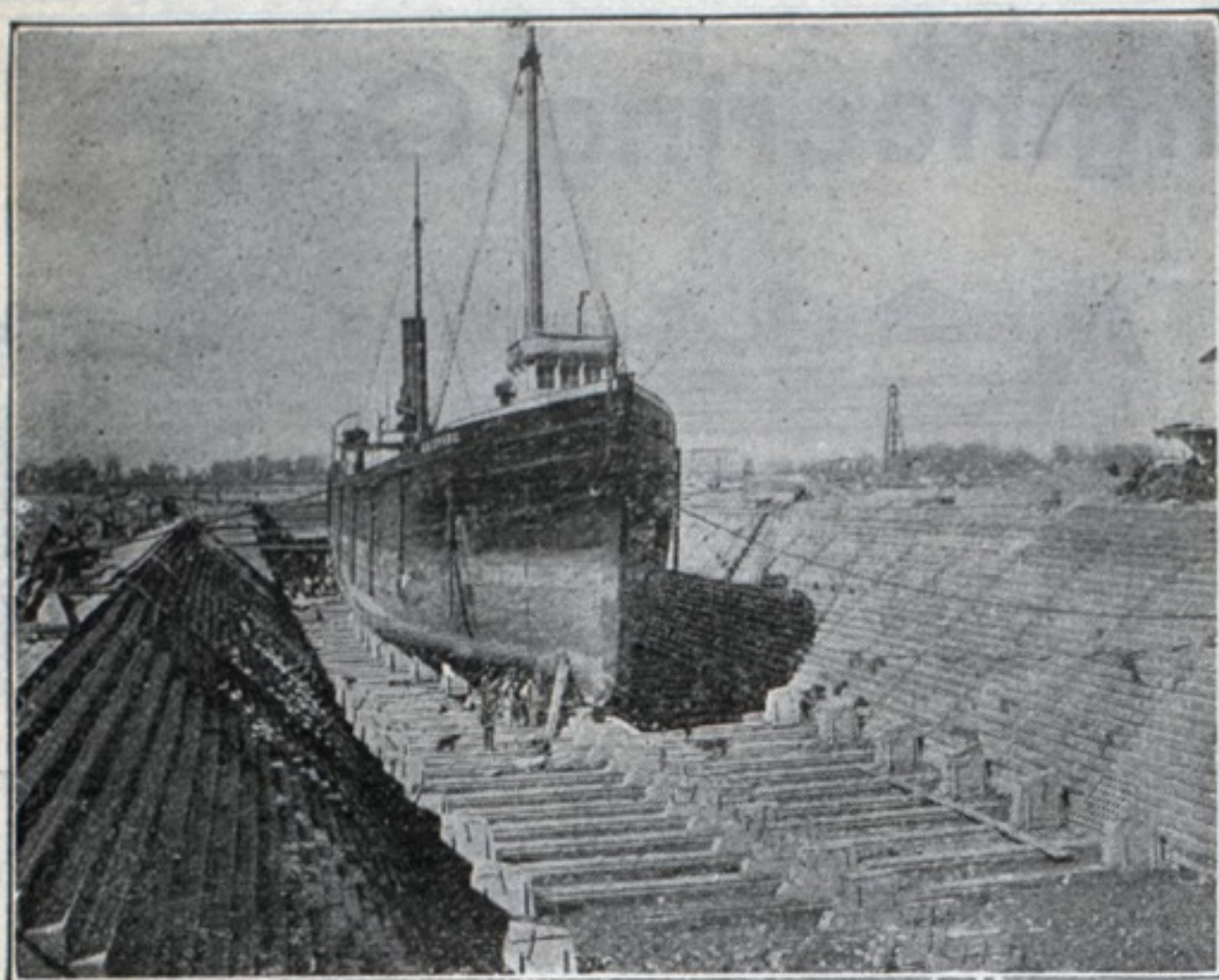
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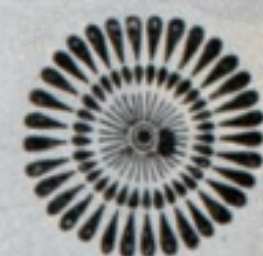
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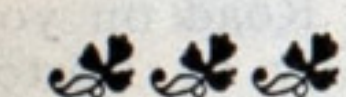
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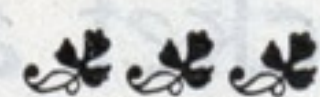
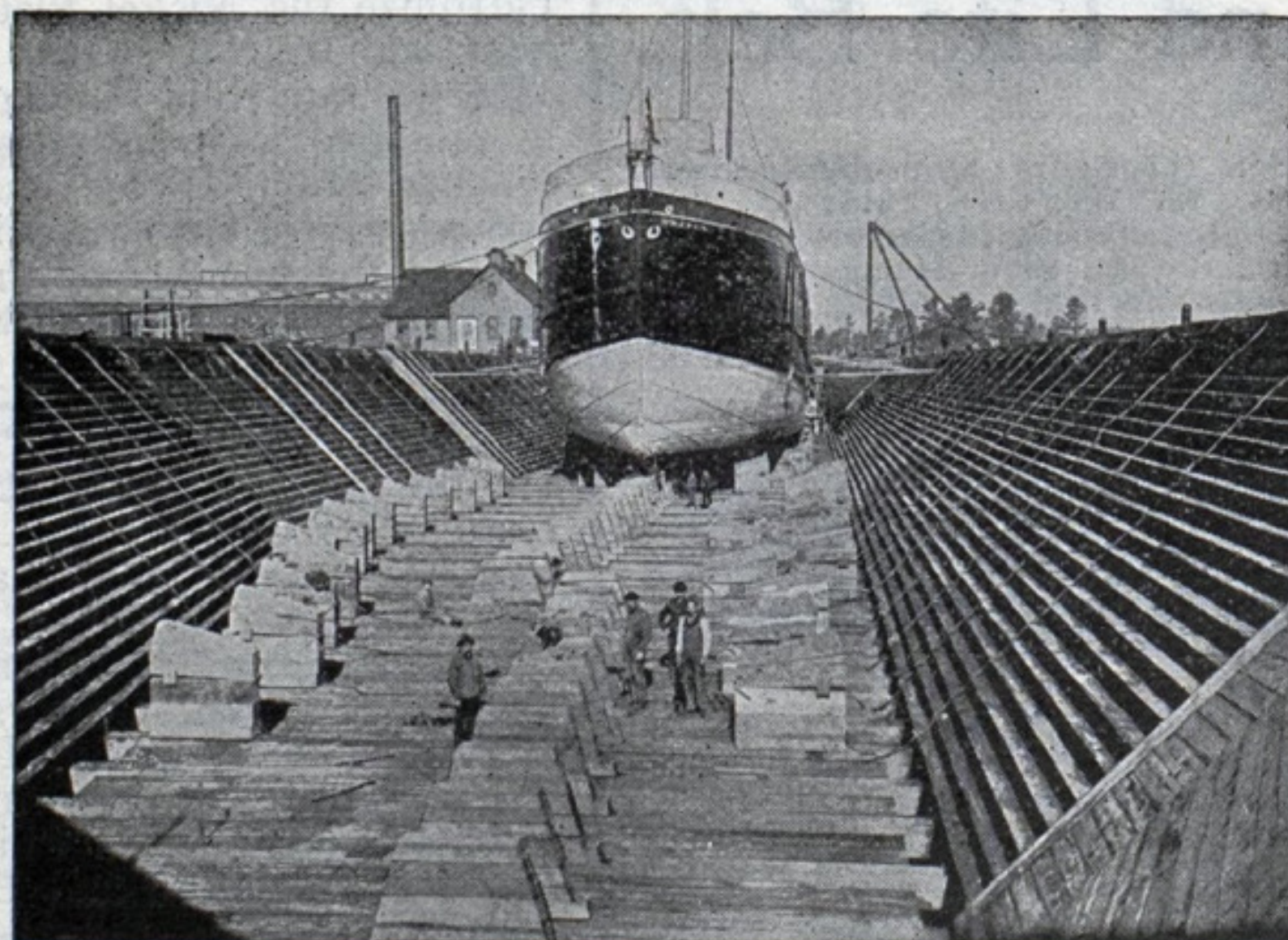
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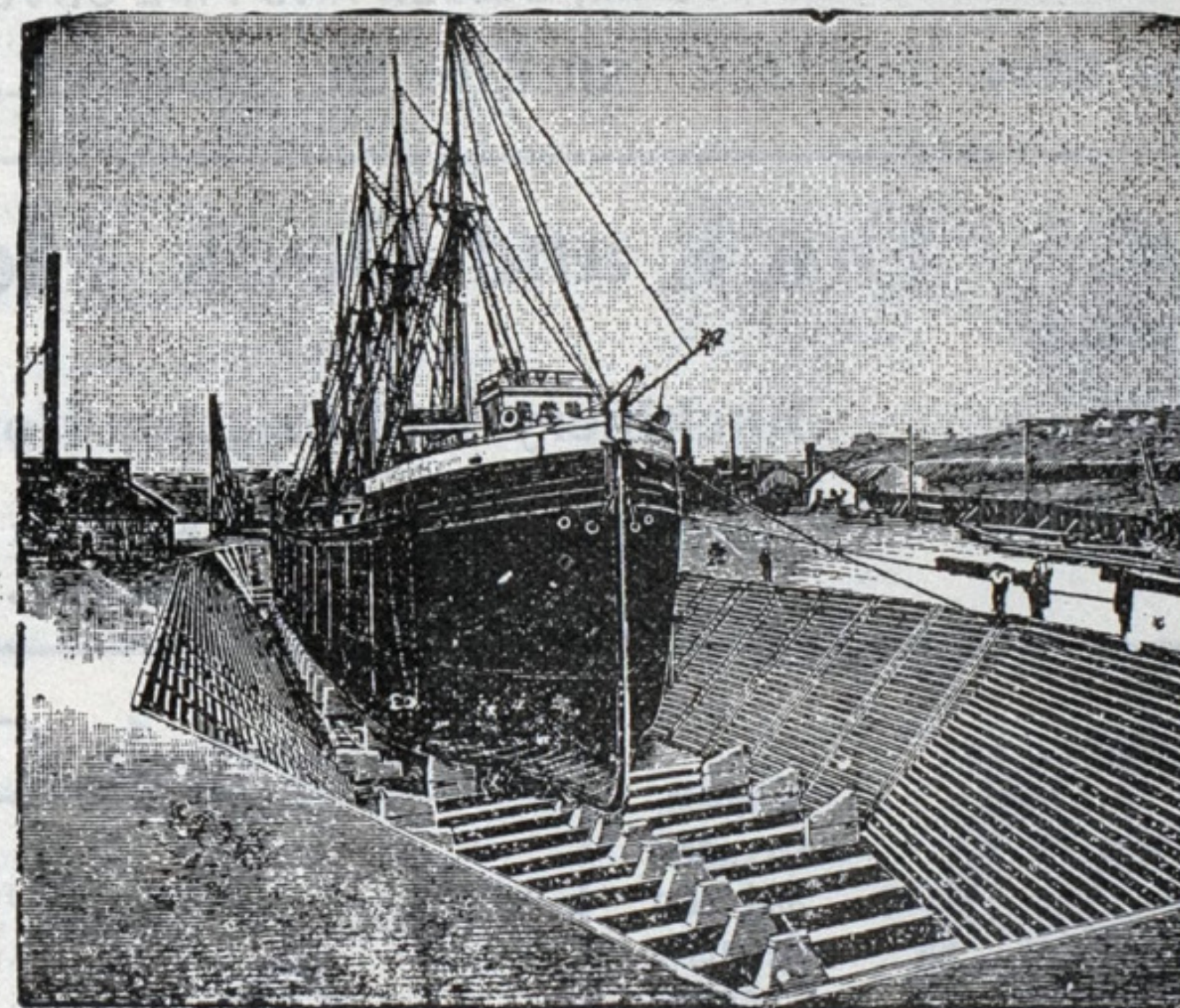
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